



**COMMENT RESPONSE DOCUMENT (CRD)
TO NOTICE OF PROPOSED AMENDMENT (NPA) 2008-15**

"Essential Requirements for Civil Aviation Environmental Protection"

Explanatory Note

I. General

1. The purpose of the Notice of Proposed Amendment (NPA) 2008-15, dated 29 May 2008, was to discuss and define how the EASA system could best contribute to the environmental compatibility of civil aviation in its extended scope of competence, taking into account the overall Community approach to environmental protection. In the NPA the Agency proposed essential requirements for environmental protection, in which it took into account the further extension of the remit of the Agency, extending the total system approach for safety to the environmental domain. When the NPA was published, it was the intention that this could lead to amending Regulation (EC) No 216/2008¹, hereinafter referred to as the Basic Regulation, to define broader, performance-based, essential requirements for environmental protection, as well as appropriate processes to ensure compliance therewith. The scope of this rulemaking task was outlined in ToR BR.004.

II. Consultation

2. NPA 2008-15 was published on the web site (<http://www.easa.europa.eu/>) on 30 May 2008. By the closing date of 15 November 2008, the European Aviation Safety Agency ("the Agency") received 1016 comments from 86 National Aviation Authorities (NAAs), professional organisations and private companies.

III. Publication of the CRD

3. All comments received have been acknowledged and incorporated into this Comment Response Document (CRD). **Taking into consideration the decision of the EASA Management Board in June 2009 to put on hold the proposed extension of the Agency's involvement in environmental issues², the Agency decided not to respond to every comment. Instead, the comments given are summarised and discussed in a more general perspective.**
4. **Following the decision of the Management Board, the Agency will not propose any change to the rule for the time being. In order to formally finalise the rulemaking task BR.004, the Agency decided, after consultation with the European Commission, that it is sufficient to publish this CRD.** The Agency, however, welcomes reactions of stakeholders towards the CRD regarding possible misunderstandings of the comments received and of discussion provided.
5. Such reactions should be received by the Agency not later than 6 December 2010 and should be submitted using the Comment-Response Tool at <http://hub.easa.europa.eu/crt/>.

IV. Discussion and Conclusions

Decision of the EASA Management Board

6. At the special meeting on EASA strategic issues on 8 June 2009, the EASA Management Board discussed environmental issues related to the Agency's priorities today and in the future. During that meeting the Management Board came to the following conclusions³:

¹ Regulation (EC) No 216/2008 of the European Parliament and of the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC (OJ L 79, 19.03.2008, p. 1). Regulation as last amended by Regulation (EC) No 1108/2009 of the European Parliament and of the Council of 21 October 2009 (OJ L 309, 24.11.2009, p. 51).

² For details see below.

³ See Summary of Decisions of EASA Management Board Special Meeting on 8 June 2009 (http://www.easa.eu.int/ws_prod/q/management-board-decisions-and-minutes.php).

- a) The meeting agreed in principle that safety is unquestionably the number one priority for EASA. Considering the demanding workload for EASA with regard to the first and second extension, extending the Agency's involvement in environmental issues should be put on hold for the time being in favour of other priorities.
- b) Moreover, the meeting agreed that the involvement of EASA in environmental matters raises important questions of principle regarding the interpretation of the Basic Regulation. It was concluded that it is therefore not up to EASA alone but the Community as a whole, to define the long-term role of the Agency with regard to environment.
- c) However, the meeting noted that some proposals for environmental regulation may have safety implications, and EASA must have the opportunity to be involved when new measures are under discussion elsewhere in the Community system.

Proposed way forward

7. In NPA 2008-15 the Agency proposed essential requirements for environmental protection in order to extend the total system approach for safety to the environmental domain. As mentioned before, following the Management Board decision, the Agency will not propose any change to the rule at this stage. Instead, the Agency will propose to start a step-by-step ("phased") approach to extend the essential requirements for environmental protection in terms of the new remits of the Agency. In addition, the Agency thinks that it would be best to further discuss and develop the essential requirements for environmental protection only after the proposals for implementing regulations for safety are clear. This would allow for a balance in resources required by stakeholders to support the Agency's rulemaking process and would also ensure that the essential requirements for environmental protection are drafted with good sight of the related safety regulations. Following this approach, the first future rulemaking activities in this context would be tasks related to product design (source noise and emissions control). All rulemaking activities would be carried out according to the Agency's rulemaking process involving stakeholders at an early stage.

Evaluation of comments and responses to questions

8. In the following paragraphs of this CRD, the comments received regarding the NPA 2008-15 and the responses given to the five questions raised in the NPA will be discussed in some detail. For that purpose in Table 1 (see Section V) the comments given to the different sections of the NPA are summarised, while Table 2 (see Section VI) summarises the responses to the questions raised. Concerning Table 1 the following should be noted:
 - Summarising more than 1000 comments as was done in Table 1 means that not every contribution, idea or thought provided could be documented. In addition, it is evident that summarising the comments could mean simplification of the content of a comprehensive comment.
 - If two or more comments were similar, they have been merged in Table 1.
 - The table contains the comment provider and the EASA number of the comment. All comments are provided in Section VII of this CRD document.
 - Table 1 contains the column "valuation". This means the valuation by the comment provider of the Agency's proposal as described in the NPA. The different valuations used are "positive", "partly positive", "neutral", in some cases "partly positive/negative", "partly negative" and "negative". For the descriptive sections of the NPA (see No. 1 to No. 25 in Table 1) the comments are assorted starting with the positive comments and listing the negative comments at the end. The same holds for general comments made in the sections containing the essential requirements (No. 26 to No. 32 in Table 1). Comments made to certain essential requirements (in No. 26 to No. 32 in Table 1) were assorted starting with a comment made to the first proposed essential requirement (e.g. 1.a.), then to the second (e.g. 1.b.), etc. For this the "valuation" is not used as criteria to assort the comments.

Structure of the evaluation

9. In the following paragraphs firstly general aspects, environmental objectives and functions of the Agency will be considered (Paragraphs 10 to 20). Secondly, general comments related to the draft essential requirements including responses to one question about these requirements will be evaluated (Paragraphs 21 to 23). Thirdly, aspects related to the following areas covered in NPA 2008-15 will be discussed (Paragraphs 24 to 52):

- Aeronautical products;
- Product design, manufacture and maintenance;
- Aerodromes;
- Air Traffic Management (ATM) and Air Navigation Services (ANS);
- Air operations;
- Environmental awareness of persons active in the aviation;
- Operating restrictions; and
- Economic measures.

General aspects, environmental objectives and functions of the Agency

10. Several comment providers were positive or were partly positive concerning the Agency's proposal on extending the total system approach for safety to environmental protection (1.1 to 1.7 in Table 1). However, the majority of comment providers raised concerns regarding the Agency's proposal as described in the NPA (1.18 to 1.37 in Table 1) or opposed the extension of the Agency's remit (1.38 to 1.40 in Table 1).

Safety vs. environmental protection

11. One major concern of many comment providers when interpreting the Agency's NPA was the fear that the proposals for environmental protection would lead to a reduction in safety (1.18, 9.10 and 17.3 in Table 1). The Agency's response is that clearly environmental protection should not lead to degradation of the high level of aviation safety. However, safety is covered in the other sets of essential requirements and thus not in those for environmental protection, just as environmental protection is not addressed in the safety-related essential requirements.

Consistency with ICAO standards

12. A second major issue that came up in the comments to the NPA was the concern that implementing rules might deviate from ICAO Annex 16. Many comment providers stressed the value of worldwide harmonisation that it brings (1.8, 9.6, 9.7 and 20.7 in Table 1). Consequently, many comment providers appreciated the Agency's input in the ICAO work and would like to see EASA increase its influence in order to support European interests. Some other comment providers saw the benefits, under certain circumstances, of deviating from ICAO Annex 16 and pointed out that ICAO standards are minimum standards, which do not cover all products and thus leave voids (9.1, 9.8 and 11.6 in Table 1).

13. The Agency agrees that working through ICAO is the preferred way for establishing aviation environmental standards. However, ICAO Annex 16 does not regulate everything, it contains standards to which differences can be filed. In some (admittedly rare) cases Europe's interest may be best served by deviating from ICAO Annex 16 as the USA already does for certain issues. However, the current direct reference to ICAO Annex 16 in the Basic Regulation makes that impossible and creates other problems. An example is that an application has been submitted to the Agency for a tilt-rotor aircraft. EASA has no legal basis to set noise standards for this product that can potentially create significant noise. In addition, ICAO Annex 16 contains very detailed requirements which deviate from the normal EASA regulatory system. Such detail is needed, but it would normally be found in implementing regulations and certification specifications.

14. For these reasons, the Agency believes that it is better to agree on high level essential requirements, which would then be the basis for implementing rules using ICAO Annex 16 to the maximum extent possible. At the same time this would allow to take into account Europe's interests and to complement the standards where needed.

Local/regional/national rules vs. EU rules

15. A third main point that was raised were concerns about the EASA system taking control over issues that can best be dealt with locally or regionally (1.19 and 1.36 in Table 1). Comment providers feared that the proposals would result in a "blanket approach", not allowing any adaptation to local circumstances. Other comment providers welcomed the benefits and level playing field that would result from appropriate EU regulation and harmonisation (1.3 and 1.4 in Table 1).
16. The European Union shall only act if and as far as the objectives of the proposed action cannot be sufficiently achieved by the Member States (subsidiarity principle). This means that implementing regulations should be limited to general principles, protecting for instance the free market and ensuring non-discrimination. It was not the intention of the NPA to propose that the implementing regulations should be dealing with specific local circumstances in detail.

Overlap and conflicts concerning responsibilities

17. Concerning Air Traffic Management (ATM) and Air Navigation Services (ANS) several comment providers foresaw potential overlaps and conflicts with Single European Sky and SESAR initiatives (1.33 in Table 1). One comment provider pointed out that synergies have to be ensured and duplication of work between the Agency and EUROCONTROL has to be avoided (1.14 in Table 1). In response to these concerns, the Agency emphasises that any such possible overlap and conflict would have to be avoided, e.g. by further establishing close coordination with EUROCONTROL.

Regulate proportionately

18. Several comment providers suggested that the extension of the Agency's remit should focus on airports and commercial air transport and not on light aviation and air sport activity (1.34 in Table 1). In addition, one comment provider pointed out that general aviation needs to be considered (1.9 in Table 1). When drafted, the Agency was of the opinion that the essential requirements should cover all activities within the scope of the Basic Regulation, including general aviation and air sport activities. However, of course, it is the Agency's intention to regulate light aviation and air sports activities in a different manner than e.g. commercial air transport, applying the principle of proportionality.

Implementing regulations and certification specifications

19. When providing a general comment on NPA 2008-15, one comment provider asked for a revision of the NPA "including precise rulemaking options and a clear vision of the tiered approach" (1.6 in Table 1). Other comment providers made similar comments in this respect by asking for more specific rules. In response, the Agency emphasises that the scope of the NPA was to make proposals for amending the Basic Regulation. This included proposals for essential requirements for environmental protection in an annex to the Basic Regulation. Thereby the Agency followed the approach applied for the EASA's first and second extension. Implementing regulations and certification specifications, containing precise rules, acceptable means of compliance and guidance material, would have been proposed after the Basic Regulation would have been amended.

The Agency's ability and timing

20. A comment provider raised concerns about the Agency's ability to take on board additional responsibilities (1.21 in Table 1). Another comment provider questioned whether it is the right time to encumber the Agency with the protection of the population from the adverse environmental effects of aviation (1.23 in Table 1). In addition, it was suggested that an extension of EASA environmental rulemaking activities shall only be

considered on a case-by-case basis (1.24 in Table 1). Finally, one comment provider made it clear that without an initial strategic debate the extension of the Agency's remit as proposed would not be supported (1.37 in Table 1). These points were also considered by the EASA Management Board. Based on such concerns, the Management Board decided to put on hold the Agency's initiative concerning the extension of the remit to environmental protection matters (see above).

Draft essential requirements

21. At the end (Part B, Subpart II), NPA 2008-15 contains draft specific essential requirements for environmental protection. Several stakeholders provided comments concerning the description of these essential requirements in general and provided comments on the introduction section (introduction section see Part B, Subpart I, Paragraphs 1 to 5 of NPA 2008-15, for comments see 18 and 19 in Table 1 of this CRD). As before, the majority of the comment providers raised concerns or expressed their overall disagreement regarding the proposals made (18.2 to 18.5 and 19.2 to 19.6 in Table 1).
22. One comment provider pointed out that this complex task requires significant professional input and intensive consultation (18.1 in Table 1). The Agency fully agrees with this opinion and, if work continues in the future, will consult stakeholders intensively to make use of their professional input. Another comment provider proposed a gradual approach (18.2 in Table 1). Since the EASA Management Board has put on hold the total approach for environmental protection, the Agency indeed intends, if work continues in the future, to apply a gradual approach starting with essential requirements related to product design.

Do the proposed essential requirements fulfil the needs?

23. In NPA 2008-15 the Agency asked whether the attached essential requirements meet the criteria described and whether they constitute a good basis for the regulation of aviation environmental protection within the envisaged scope of the extended EASA system (**Question 4**). No comment provider responded with an unqualified "yes", while the response of twelve comment providers was "yes, in general" (see Question 4 in Table 2). Eleven comment providers responded with "no". In addition, 19 other comment providers emphasised their serious concerns regarding the proposal, and eight comment providers did not see any need for EU overall essential requirements for environmental protection. Finally, five comment providers again pointed out that environmental protection matters have to be regulated proportionately. Summarising these responses, it needs to be concluded again that the majority of the comment providers did not support the proposals as described in the NPA.

Aeronautical products

Annex II aircraft

24. Annex II of the Basic Regulation lists aircraft excluded from the regulation. In NPA 2008-15 the Agency discussed whether it would be appropriate to reconsider the Agency's responsibility for certain aircraft types listed in Annex II (see Part A, Subpart IV, Paragraphs 18 to 20 of the NPA). Main reason is that some of these aircraft pose serious environmental concern. Many comment providers required clarification and better reasoning (2.1 in Table 1). Others were of the opinion that ultra light aircraft must be left outside the EASA system (2.2 in Table 1).

Ultra light aircraft

25. In this context, the Agency raised the question whether ultra light aircraft, produced in an industrial manner, should be subject to common European rules (**Question 1**). In response to this question, twelve comment providers answered "yes", but the majority, 25 comment providers, were clearly opposing common rules for ultra light aircraft built following an industry standard (see Question 1 in Table 2). In addition, six comment providers emphasised that ultra light aircraft have to be regulated proportionately.

Product design, manufacture and maintenance

26. In NPA 2008-15 the Agency made it clear that concerning product design approvals the EASA system is already well established. In the NPA, however, it is also stated that "it will be necessary to further elaborate the content of Part-21 to specify the quantified limits contained in Annex 16 and [to] develop Community requirements for products not covered by this Annex". In addition, it is proposed that "the opportunity should be taken to review some provisions of the Basic Regulation". Overall only few positive comments were received concerning the Agency's proposals related to product design, manufacture and maintenance, as laid down in the NPA. Most comment providers made at least partly negative statements concerning the Agency's proposals, asked for clarification or came up with additional or alternative proposals.

Need for clarification

27. The fact that many comment providers asked for clarification (11.5, 11.11, 11.12, 20.2, 27.13, 27.16, 27.21 and 27.25 in Table 1) makes it clear that further and more detailed information would have to be provided, if the Agency becomes active again on this rulemaking task.

Additional and alternative proposals

28. Many comment providers made additional or alternative proposals such as:

- ICAO stringency increase for light aircraft is needed (11.6 in Table 1);
- Expanding NAAs responsibility for issuing noise certificates has to be discussed (11.7);
- Do not modify Article 5 of the Basic Regulation. Do rewrite Article 6 (11.14);
- Maintenance and repair should be excluded (11.15);
- A requirement for the integration of noise reducing add-ons is needed (20.1);
- Old engines should be able to continue flying (27.3);
- APUs might be considered (27.4); and
- High performance un-powered air sport aircraft are to be excluded (27.5).

Comment providers' positions and concerns

29. Many comment providers provided statements, which made it clear that they have a firm position on certain issues. Such statements were:

- Third-country products should be manufactured under the same environmental protection requirements as in the EU (11.10 in Table 1);
- Retrospective requirements are not practical (11.13);
- A general approval for assessment bodies is not acceptable (11.16);
- Rulemaking should not be a role for the Agency, but for the Commission (11.17);
- To some extent the discussion is irrelevant, some of the measures described would be taken anyway (20.3);
- It is inappropriate for EASA to describe how engines should be designed (20.5);
- EASA should limit its activity working in the ICAO/CAEP arena (20.7); and
- In parts the requirements are nothing new (27.7).

30. In addition, many comment providers raised serious concerns and suggested changes regarding the essential requirements proposed by the Agency (27.17, 27.18, 27.19, 27.20, 27.22, 27.23 in Table 1). As expected, different comment providers expressed opposing views. A good example is the listing of emissions species in Paragraph 1.b. of the essential requirements as provided in NPA 2008-15. While one comment provider agreed not to consider CO₂ (27.1 in Table 1), another comment provider suggested to explicitly list CO₂ (27.15 in Table 1). In addition, another comment provider asked why lead, particles and CO₂ are missing (27.16 in Table 1), while a fourth comment provider proposed to avoid the list of emissions species at all.

Conclusion for the Agency

31. The points described in the last paragraphs clearly show that there is further need to clarify and to discuss with stakeholders many issues related to product design, manufacture and maintenance. Misunderstandings have to be avoided and different positions at least have to be clearly identified. Since the rulemaking task has been put on hold for the time being, it does not seem to be effective to go further into detail in clarifying and discussing controversial issues at this stage. If, however, the remit of the Agency in the future was reviewed and/or extended concerning environmental protection matters, the issues raised by the comment providers would have to be taken into consideration in an appropriate manner. For the area of product design, manufacture and maintenance this would include involving stakeholders at an early stage.

Powers to assessment bodies?

32. Related to product design, manufacture and maintenance the Agency asked in NPA 2008-15 whether powers should be given to assessment bodies to verify that aircraft below 2000 kg comply with the environmental requirements, and whether the assessment bodies should issue the related approvals. In addition, the Agency wished to know whether accreditation of such assessment bodies should be done by the Agency (**Question 5**). The responses to these questions are summarised in Table 2. At least in principle 19 comment providers (twelve "yes" and seven "yes, in principle") agreed that powers are given to assessment bodies and that the Agency does the accreditation of these bodies. Six other comment providers did not agree. In addition, two comment providers would be concerned if powers were given, five other comment providers proposed to regulate proportionately, and another comment provider would leave the decision to the Agency. The other responses relating to Question 5 stated that further clarification is needed (three comment providers), that the issue is of no relevance (one) and that no firm opinion exists (eight). Finally, the responses of seven comment providers need explanation to be completely understood by the Agency.
33. The diversity of responses to Question 5 aside of a clear "yes" or "no" shows, as above, that further clarification of the concept and further discussion with stakeholders would be needed. Since the rulemaking activity as such has been put on hold, however, no further exploration is needed at this stage.

Aerodromes

Aerodromes to be regulated through the EASA system?

34. Aerodromes are one of the areas to which the Agency proposed to extent its remit concerning the environmental domain in NPA 2008-15. Some comment providers supported this proposal (3.1, 12.1 and 21.1 in Table 1), while many comment providers were of the opinion that the Agency should not regulate environmental aspects of aerodromes (3.9, 12.6 and 28.6 in Table 1). This became even clearer when the responses to **Question 2a** were evaluated. Twelve comment providers responded with "yes" or "yes, in general" when asked whether airport design and airport operations should be regulated for their environmental impact through the EASA system (see Question 2a in Table 2). The majority, however, 27 comment providers, answered "no".
35. Twelve additional comment providers emphasised, when responding to Question 2a, that aerodromes have to be regulated proportionately (see Table 2), i.e. large commercial airports have to be regulated in a different manner than small airfields. This position is also visible in the summary of comments to NPA 2008-15 given in Table 1 (3.5 and 28.3 in Table 1). Some comment providers were of the opinion that the Agency should not regulate environmental aspects of airstrips and airfields (12.5 in Table 1).

The Agency's proposals on aerodromes

36. Regarding the proposals made for aerodromes' essential requirements or regarding the description of these proposals many comment providers raised concerns, several of them serious concerns, partly of technical matter (21.4 and 28.7 of Table 1). Since the

Agency's overall proposal is put on hold, the related item will not be discussed in detail in the present CRD. However, the concerns are documented and will be taken into consideration if regulating environmental protection matters for aerodromes becomes an issue in the future.

Contributors to noise and emissions

37. Several comment providers pointed out that aircraft are not per se the main contributors to aviation noise and downgrading of local air quality around an aerodrome (3.8 in Table 1). The Agency agrees that other sources can play a significant role. If in the future environmental protection aspects of aerodromes are to be regulated by the EASA system, the Agency would have to take into account non-aircraft contribution to noise and emissions around aerodromes.

Regulating power generation, building design, etc.

38. In NPA 2008-15 it was made clear that the Agency did not plan to regulate the environmental impact from airport design or operation, such as power generation, building design and power delivery (see Part A, Subpart IV, Paragraph 22 of the NPA). Several comment providers agreed to this position (3.2 in Table 1).

Safety, alignment with ICAO, national and local responsibilities

39. Related to the discussion on aerodromes several comment providers emphasised again that safety has to be considered first (28.4 in Table 1). In addition, comment providers also pointed out again that any extension of the Agency's remit has to be in line with ICAO work and that ICAO guidance has to be taken into consideration (3.4 and 28.2 in Table 1). The Agency's position on these matters is explained in Paragraphs 11 to 14. Finally comment providers again requested or even required to leave responsibilities to national and local level (3.7, 12.4 and 28.5 in Table 1). The Agency of course fully supports the general principle of subsidiarity, but is of the opinion that there are objectives that cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale or effects of the proposed action, be better achieved by the European Union. It is clear that further clarification of the concept and further discussion with stakeholders would be needed if and when an extension of the remit was considered in the future. However, since the rulemaking activity as such has been put on hold, no further exploration is needed at this stage.

Land use planning

40. Concerning **Question 2b** most of the comment providers responding (34 comment providers, see Table 2) agreed that land use planning around aerodromes is better regulated at horizontal level, taking into account all sources of noise/pollution rather than from the aviation perspective only. Only three comment providers have the opposite opinion. When answering Question 2b, ten comment providers, however, did not provide a clear "yes" and "no", but emphasised that aerodromes' regulation is to be left to national, regional or local authorities. Two other comment providers pointed out that aerodromes have to be regulated proportionately.

Air Traffic Management (ATM) and Air Navigation Services (ANS)

41. In NPA 2008-15 the Agency stated that synergies would be created if the EASA system would not only address safety regulation of ATM/ANS, but at the same time the environmental impact. Only a few comment providers supported this approach (4.1 and 13.1 in Table 1). The majority of comment providers were critical towards the Agency's proposals concerning ATM/ANS, had serious concerns regarding the way the essential requirements were phrased or were of the opinion that the Agency should not become responsible (e.g. 4.5, 4.6, 4.7, 4.9 and 29.5 in Table 1).

Additional proposals and concerns regarding the Agency's proposals

42. Several comment providers made additional proposals such as
- EASA should push for direct flights between A and B (4.2 in Table 1);

- Crew and passengers have to be protected from the impact of ozone concentration and cosmic radiation (4.3 in Table 1); and
- Sensitivity of animals should be considered (4.4 in Table 1).

Since the proposal to extent the Agency's essential requirements for environmental protection has been put on hold, the Agency will not discuss these proposals in detail at this stage. However, if at a later stage the extension would be considered again, these additional proposals might become an issue. The same holds for concerns raised such as further restrictions on aircraft routings/trajectories (4.5 in Table 1) and further attempts to degrade free movement of general aviation (4.6 in Table 1). The overall position of the Agency is that proportionate regulation is needed taking into account environmental protection aspects.

The Agency and EUROCONTROL

43. One important aspect related to ATM/ANS, which led to comments and concerns, is the potential for duplication, conflict and contradiction between Single European Sky, SESAR and the proposals made in the NPA (13.2 in Table 1). This issue was already discussed above (Section "General"). Here the Agency would follow the proposal of several comment providers and would liaise with EUROCONTROL (22.1 and 29.2 in Table 1) and other stakeholders as well as with the European Commission in order to avoid any duplication of work and contradiction.

Air operations

44. In NPA 2008-15 the Agency considered it necessary to better regulate the environmental dimension of air operations and to develop dedicated requirements addressed to air operators and flight crews. Some comment providers supported this approach (5.1 and 14.1 in Table 1). However, the Agency received more negative than positive comments as well. For several comment providers it was not clear why the environmental dimension of air operations needs to be regulated by the Agency, no benefit was visible and serious concerns regarding the proposed essential requirements were brought forward etc. (5.4, 14.3, 30.11, 30.14, 30.15, 30.16 and 30.17 in Table 1). Several comment providers were of the opinion that the Agency should not restrict operations with environmental protection regulations or simply stated that the Agency's proposals are not supported (5.9 and 14.5 in Table 1).

Competition between EU and non EU carriers

45. Some comment providers raised the concern that the proposed measures would lead to market distortion and that EU carriers will be penalised (14.4 in Table 1). Another comment provider stated that the restrictions applied to non-European operators would simplify competition (14.2 in Table 1). The Agency is of the opinion that one of the goals, if the proposals would be considered in the future, should be a fair and simplified competition among European and non-European operators. Consequently, care would be taken that the measures applied would not lead to any market distortion penalising EU carriers.

Carrying more fuel than needed

46. In the NPA the Agency described a possible example of common rules for air operations: The prohibition of carrying more fuel than necessary to profit only from price difference between different regions. The reason behind the prohibition of this practice would be the fact that more emissions than necessary would be produced. Many comment providers made critical statements concerning this example (5.5 in Table 1). Thereby the comment providers made it clear that the amount of fuel to be carried on board is a safety issue to be decided by the pilot-in-command, and that such bureaucratic measure ("environmental regulation to fix an economic problem") would not be acceptable. In response, the Agency states that any such measure, if the remit of the Agency would be extended in the future to environmental protection aspects of air operations, would have to take into consideration all aspects.

Environmental awareness of persons active in the aviation system

47. In NPA 2008-15 the Agency envisaged extending the EASA system to the environmental regulation of the licensing of pilots, air traffic controllers and maintenance engineers, as well as the training of any other person active in the aviation system. According to the NPA, all persons would be affected whose actions can have a significant effect on noise and emissions and the subsequent environmental impact. Among all comment providers several expressed general support for the measures proposed by the Agency (6.1, 6.2, 15.1, 15.3, 24.1 and 31.1 in Table 1). Some other comment providers emphasised that only certain persons need to be trained (6.3, 6.6 and 15.4 in Table 1) or pointed out that certain persons should be excluded (maintenance personnel, 6.9 and 15.5 in Table 1). Other comment providers agreed to the concept of environmental awareness of persons involved, however, opposed the need of any regulatory requirement (6.4, 15.2 and 31.4 in Table 1). One comment provider pointed out that environmental awareness shall not diminish attention to flight safety (6.7 in Table 1), while another comment provider raised concerns related to the additional overhead and costs (15.7 in Table 1). Finally, several other comment providers did not see any need for the Agency to regulate (6.8 in Table 1) or opposed the Agency's proposals in total (6.10 and 24.3 in Table 1).

Conclusion for the Agency

48. While summarising the comments received, it can be concluded that the majority of comment providers in general would agree to measures taken to further improve the environmental awareness of persons active in the aviation system. If in the future the remit of the Agency would be extended to the environmental awareness of persons active in the aviation system, the Agency would explore possible measures in close cooperation with stakeholders.

Operating restrictions

49. In NPA 2008-15 the Agency concluded that there could be synergies in transferring the regulation for restrictions due to safety reasons to environmental protection. Several comment providers agreed to this proposal at least in general (7.1, 16.1 and 31.1 in Table 1), while others raised serious concerns or did not agree (7.8, 16.3, 25.4 and 32.10 in Table 1). For two comment providers it was not clear why the Agency needs to get involved (7.6 and 32.9 in Table 1). Several comment providers pointed out that there is no need to duplicate rules already established in Member States. New rules are only useful if the existing ones are replaced (7.5 in Table 1). Many comment providers asked for clarification concerning the proposals, or requested justification, evaluation or impact assessment (7.3, 16.2, 25.2, 32.2 and 32.8 in Table 1). Some comment providers proposed additional or alternative measures such as:

- Different areas for limitation of aircraft operations should be considered (technological limitations, restrictions depending on noise levels, on operating hours, on the flight path etc.) (25.1 in Table 1);
- EASA to set standards for noise outside and inside of buildings (7.2); and
- EASA should consider modifying rather than restricting operations (25.3).

Operating restrictions to be regulated by the Agency?

50. By asking **Question 3** the Agency wanted to know whether operating restrictions should be subject of common rules under the EASA system. Nine comment providers were positive without reservation, while the majority of 27 comment providers did not agree to such an approach (see Question 3 in Table 2). In their response other comment providers emphasised that operating restrictions have to be regulated by national, regional or local authorities (ten comment providers) or that operating restrictions have to be regulated proportionately (three comment providers).

Conclusion for the Agency

51. As before, since the rulemaking task has been put on hold, it is not necessary for the Agency to respond in detail to the comments received. If, however, the remit of the

Agency would be extended in the future, the issues raised by the comment providers and the responses given relating to Question 3 would have to be taken into consideration. Further clarification and discussion with stakeholders is needed before any decision on possible regulations concerning operating restrictions within the EASA system can be made.

Economic measures

52. In NPA 2008-15 the Agency pointed out that economic measures should not be addressed in the EASA system to reach environmental objectives. In the NPA it is stated that "Economic measures are not part of the Agency's remit, as it was considered that trade-offs between safety and economic objectives should be made on political rather than on executive level". Some comment providers raised serious concerns over the rationale related to trade-offs between safety and economic measures (8.5 in Table 1). In order to avoid any misunderstanding, the Agency emphasises that it is EASA's principle that safety cannot be compromised for economic benefit or any other reason. Aside from this concern, the majority of comment providers supported the Agency's proposal not to address economic measures (8.1 in Table 1).

V. Table of summary of comments on NPA 2008-15**Table 1: Summary of comments on NPA 2008-15**

No.	Comment	Valuation (see ⁴)	Provided by (comment # in brackets)
1	GENERAL COMMENTS, TITLE PAGE, A. EXPLANATORY NOTE, A. EXPLANATORY NOTE – II. Consultation, A. EXPLANATORY NOTE – IV. Content of the Notice of Proposed amendment, A. EXPLANATORY NOTE – IV. Content of the Notice of Proposed amendment – Background, A. EXPLANATORY NOTE – IV. Content of the Notice of Proposed amendment - Scope		
1.1	The EASA proposal on extending the essential requirements for environmental protection is supported.	Positive	Verdi (112), UFCNA France (286), DIRAP France (402), CIRENA (892), ADVOCNAR (204)
1.2	EASA's intent to involve itself in environmental matters is positive.	Positive	SAS Norway (103)
1.3	Overseeing by a single body as EASA of both safety and environmental rulemaking would be an advantage.	Positive	Dassault Aviation (911)
1.4	The environment must be under the responsibility of one body.	Partly positive	J. Fridrich (469), Europe Air Sports (753), Light Aircraft Association of the Czech Republic (760)
1.5	If EASA has the resources, the Agency would be the best coordinator.	Partly positive	FCAA Finnish Civil Aviation Authority (818)
1.6	The NPA addresses very fundamental aspects. A more focussed approach would be of much higher benefit.	Partly positive/negative	BMVBS Germany (344)
1.7	In general, the concept appears reasonable. The content, however, raises a number of questions and concerns.	Partly positive/negative	AOPA Sweden (149, 956), FAA (742), ASD (802), Rolls Royce (803)
1.8	Any environmental protection requirement must be consistent with the ICAO standards.	Neutral	Aerospace Industries Association (448), ATA Air Transport Association of America (470, 488), AgustaWestland (682), CFM (835), ECA European Cockpit Association (546), IATA (380)
1.9	General aviation needs to be considered.	Neutral	European Sailplane Manufacturers (788)
1.10	Clear statement of the benefits and potential	Neutral	UK CAA (242)

⁴ Valuation by the comment provider of the Agency's proposal as described in NPA 2008-15.

No.	Comment	Valuation (see ⁴)	Provided by (comment # in brackets)
	costs is expected.		
1.11	EASA shall define stringent environmental standards.	Neutral	J. Beckers UECNA (212)
1.12	Operating restrictions must not be excluded.	Neutral	J. Beckers UECNA (213)
1.13	Ultra light aircraft of Annex II have to be included.	Neutral	UFCNA (151)
1.14	Synergies have to be ensured and duplication EASA/EUROCONTROL has to be avoided.	Neutral	EUROCONTROL (414)
1.15	Concerning this NPA, stakeholders must be consulted within working group meetings to elaborate the best proposals.	Neutral	Dassault Aviation (913)
1.16	It is suggested to create generally applicable tools in lieu of European standards.	Neutral	S. Wenger (19)
1.17	Any proposed regulatory measure must be described precisely enough to provide understandable guidance.	Neutral	ATA Air Transport Association of America (470, 488)
1.18	Safety has to be considered first.	Partly negative	Royal Aeronautical Society (20, 22), UK CAA (239, 240, 254), EUROCONTROL (414), ATA Air Transport Association of America (470, 488), Airbus (516), UK Department for Transport (711), Norwegian Ministry of Transport and Communication (569), FAA (742), Rolls Royce (803), IACA International Air Carrier Association (810), DGAC France (837), European Regions Airline Association (849), Cathay Pacific Airways (894), ECA European Cockpit Association (546), General Aviation Manufacturers Association (546), IFATCA (510), NATS (646, 652), Swedish Transport Agency - Civil Aviation Department (334), IATA (380)
1.19	Potential for duplication, conflict and contradiction between different environmental initiatives and responsible bodies (Community, national, local).	Partly negative	UK CAA (243), KLM Engineering & Maintenance (163), Swedish Environmental Protection Agency (681, 829), British Airways (599), IATA (380)
1.20	The proposal could result in a duplication of rules, significant costs and administrative burden.	Partly negative	Munich Airport (823), IACA International Air Carrier Association (810)
1.21	Concern about EASA's ability to take on additional responsibilities.	Partly negative	UK CAA (244)
1.22	It is not clear what aspects of environmental protection measures would be excluded from EASA's responsibilities.	Partly negative	UK CAA (258)

No.	Comment	Valuation (see ⁴)	Provided by (comment # in brackets)
1.23	It is questionable whether it is the right time to encumber EASA with the protection of the population from the adverse environmental effects of aviation.	Partly negative	CAA NL (843)
1.24	An extension of EASA rulemaking activities shall only be considered on a case-by-case basis.	Partly negative	ACI Europe (978)
1.25	Strategic discussion at Community level is welcome. However, at this stage the NPA does not provide the basis for such a debate.	Partly negative	UK CAA (245)
1.26	The text should be more objective, and should be shorter avoiding redundancies and repetitions.	Partly negative	APAU Portuguese Association for Ultralight Aviation (771), FFPIUM Federation Francaise de Planeurs Ultralegers Motorises (433)
1.27	The regulatory framework may remain as it is.	Partly negative	FRAPORT AG (52)
1.28	A complete revision of the draft is requested.	Partly negative	Dassault (441)
1.29	Better regulation rather than more regulation.	Partly negative	AEA Association of European Airlines (287)
1.30	The NPA misinterprets what is meant by a "total system approach".	Negative	UK CAA (241, 257)
1.31	There are inconsistencies between the present NPA and predecessors.	Negative	European Microlight Federation (750)
1.32	A Regulatory/Risk Impact Assessment (RIA) is missing.	Negative	AEA Association of European Airlines (287), IATA (380)
1.33	Potential overlaps/conflicts with Single European Sky and/or SESAR initiatives are foreseen.	Negative	SESAR Joint Undertaking (832), AEA Association of European Airlines (287)
1.34	The NPA should focus on airports and commercial air transport and not on light aviation/air sport activity.	Negative	FAI Federation Aeronautique Internationale (831), Finnish Aeronautical Association (834), Light Aircraft Association (347)
1.35	The proposed structure of the NPA is opposed. The requirements are in many respects imprecise.	Negative	Environmental Court Vänersborg, Sweden (294), General Aviation Manufacturers Association (546), AEA Association of European Airlines (287)
1.36	A local or national approach should be preferred whenever possible.	Negative	DGAC France (837), Finavia (805), General Aviation Awareness Council, UK (394)
1.37	Without an initial strategic debate the broad extension of EASA's remit as proposed is not supported.	Negative	UK CAA (252)
1.38	EASA is urged to seriously reconsider the proposal.	Negative	ADV (567), IATA (379), Light Aircraft Association (527), IFATCA (510, 511), Aero-Club of Switzerland (119, 129, 133)

No.	Comment	Valuation (see ⁴)	Provided by (comment # in brackets)
1.39	The EASA NPA should not result in any regulation. The work should be terminated.	Negative	L. Hjelmberg (86), N. Hitchman (140), European Regions Airline Association (833), Aero-Club of Switzerland (158)
1.40	The (broad) extension of EASA's remit is not supported.	Negative	UK CAA (238), Cathay Pacific Airways (894), MT-Propeller (984), AEA (997), BALPA (662)
2	A. EXPLANATORY NOTE – IV. Content of the Notice of Proposed amendment – Scope – Aeronautical Products		
2.1	Concern with paragraphs 18 and/or 19. Clarification and/or reasoning are/is required.	Negative	Airbus (350), GAMA General Aviation Manufacturers Association (731), European Microlight Federation (751), European Regions Airline Association (850), Cathay Pacific Airways (895), AEA (998)
2.2	Microlight aircraft must be left outside the scope of the EASA regulatory approach (comment on paragraph 19 of NPA 2008-15).	Negative	Light Aircraft Association (403), FFPIUM Federation Francaise de Paneurs Ultralegers Motorises (423), J. Fridrich (471), DAeC Deutscher Aero Club (521), BALPA (618), Europe Air Sports PM (754), Light Aircraft Association of the Czech Republic (761), APAU (778)
2.3	EASA needs to define the aircraft types, which are affected by environmental special rules (comment on paragraph 20).	Negative	Dassault Aviation (915)
3	A. EXPLANATORY NOTE – IV. Content of the Notice of Proposed amendment – Scope – Aerodromes		
3.1	EASA should become responsible.	Positive	J. Beckers UECNA (216)
3.2	Agreement that EASA should not get involved in e.g. power generation at aerodromes, building design, minimisation of engine running time etc. (comment on paragraph 22).	Positive	KLM (7), FRAPORT (23), UK CAA (262), Light Aircraft Association (405)
3.3	Agreement that EASA should not get involved in the administrative sovereignty (comment on paragraph 23).	Positive	FRAPORT (58), KLM Engineering & Maintenance (165)
3.4	Extension can only take place, if it goes in line with ICAO work (comment on paragraph 21).	Neutral	IFATCA (510)
3.5	Small airfields should not be regulated as major international airports (comment on paragraph 21).	Negative	Light Aircraft Association (405), European Microlight Federation (752), ECOGAS (793)
3.6	Restrictions to the aerodrome and operations are opposed (comment on paragraph 21).	Negative	KLM (6)

No.	Comment	Valuation (see ⁴)	Provided by (comment # in brackets)
3.7	Leave responsibility to national or local level, and to airport operator, airlines and ATC, as appropriate (comment on paragraph 21).	Negative	FRAPORT (55, 56), Aero-Club of Switzerland (121), UK CAA (261), DAeC Deutscher Aero Club (533)
3.8	Aircraft are not per se the main contributors to aviation noise and local air quality around an aerodrome (comment on paragraph 21).	Negative	KLM (6), FRAPORT (54), UK General Aviation Awareness Council (396), GAMA General Aviation Manufacturers Association (713), Cathay Pacific Airways (896)
3.9	EASA should not become responsible.	Negative	LBA (301), BALPHA (622), ERA European Regions Airline Association (852)
4	A. EXPLANATORY NOTE – IV. Content of the Notice of Proposed amendment – Scope – Air Traffic Management (ATM) and Air Navigation Services (ANS)		
4.1	The proposal to regulate the environmental impact of ATM and ANS through the EASA system is supported.	Positive	Royal Aeronautical Society (25), J. Beckers UECNA (218)
4.2	EASA should push for direct flights between A and B where such flights are possible	Neutral	KLM (9), S. Wenger (48), Aero-Club of Switzerland (157)
4.3	Crew and passengers have to be protected from the impact of ozone concentration or cosmic radiation.	Neutral	W. Gessky (611)
4.4	Sensitivity of animals should be considered.	Neutral	DAeC Deutscher Aero Club (536)
4.5	The discussion in this section, especially (further) restrictions on aircraft routings/trajectories, raises concern.	Partly negative	GAMA (477), BALPA (623), NATS (660), Cathay Pacific Airways (897), Dassault Aviation (916, 948)
4.6	Any further attempts to degrade free movement of GA aircraft will be opposed.	Partly negative	Light Aircraft Association (407)
4.7	EASA's involvement may not be helpful.	Partly negative	UK Department for Transport (706)
4.8	EASA shows lack of understanding.	Negative	IFACTA (510)
4.9	EASA should not become responsible.	Negative	FRAPORT (60, 61), UK CAA (263), European Regions Airline Association (854)
5	A. EXPLANATORY NOTE – IV. Content of the Notice of Proposed amendment – Scope – Air operations		
5.1	The proposal to regulate the environmental impact of operations through the EASA system is supported.	Positive	Royal Aeronautical Society (26)
5.2	Pilots have a lack of knowledge of environmental impacts of flight operations.	Neutral	J. Beckers UECNA (219)
5.3	Agreement that operating rules shall contain environmental protection measures; disagreement with the prohibitions as cited	Partly positive/negative	S. Wenger (49)

No.	Comment	Valuation (see ⁴)	Provided by (comment # in brackets)
	in the NPA.		
5.4	Not clear that the environmental dimension of air operations needs to be regulated by EASA.	Partly negative	UK CAA (267, 268), DAeC Deutscher Aero Club (538)
5.5	EASA's example to prohibit carrying more fuel than needed raises (serious) concern (comment on paragraph 27).	Negative	FRAPORT (62), L. Hjelmsberg (89), Aero-Club of Switzerland (122), KLM Engineering & Maintenance (167), GAMA (478), BALPA (624), NATS (661), UK Department for Transport (707), Rolls Royce (736), ECOGAS (795), European Regions Airline Association (864), Cathay Pacific Airways (898), Dassault Aviation (917, 949), AEA (1002)
5.6	Operations for sports and recreational purposes should be exempted from EASA environmental rules.	Negative	J. Fridrich (484), Europe Air Sport PM (756), Light Aircraft Association of the Czech Republic (763)
5.7	Attempts to regulate GA flights must be opposed.	Negative	Light Aircraft Association.
5.8	In parts EASA's proposals are in contradiction to the Chicago Convention.	Negative	ATA Air Transport Association of America (496)
5.9	(At this stage) EASA should not restrict operations with environmental protection regulations.	Negative	KLM (10, 11), Aero-Club of Switzerland (122), APAU (775), ECOGAS (795)
6	A. EXPLANATORY NOTE – IV. Content of the Notice of Proposed amendment – Scope – Environmental awareness of persons active in the aviation system		
6.1	The proposal to extend the EASA system to environmental regulation for persons working in aviation is supported.	Positive	Aero-Club of Switzerland (123), LBA (302)
6.2	In general the proposal is supported. Significant additional administrative burden and cost have to be avoided.	Partly positive	UK Department for Transport (708)
6.3	Only certain people need to be trained.	Partly positive	Light Aircraft Association (447)
6.4	Staff should be environmentally aware, but no regulatory requirement is needed.	Partly positive	NATS (663)
6.5	Already partly included in German pilot licensing.	Partly positive	DAeC Deutscher Aero Club (539)
6.6	Members of "aircraft noise commissions" should receive training. National legislation is needed.	Partly positive	J. Beckers UECNA (220)
6.7	Environmental awareness shall not diminish attention to flight safety.	Partly negative	Rolls Royce (735)
6.8	Not clear that environmental awareness of people working in aviation needs to be regulated by EASA.	Partly negative	UK CAA (269), GAMA (479), BALP (625), European Regions Airline association (865)

No.	Comment	Valuation (see ⁴)	Provided by (comment # in brackets)
6.9	The proposal to extend the EASA system to environmental regulation for maintenance personnel is opposed.	Negative	AEA (1003)
6.10	The proposal to extend the EASA system to environmental regulation for persons working in aviation is opposed.	Negative	Royal Aeronautical Society (27), FRAPORT (63), KLM Engineering & Maintenance (168)
7	A. EXPLANATORY NOTE – IV. Content of the Notice of Proposed amendment – Scope – Operating restrictions		
7.1	Proposal will be supported if costs can be reduced.	Partly positive	FRAPORT (64)
7.2	EASA to set standards for noise outside and inside of buildings.	Neutral	J. Beckers UECNA (221)
7.3	Assessment and justification for the proposal needed.	Partly negative	NATS (664)
7.4	To be in line with ICAO rewording is needed.	Partly negative	IFATCA (510)
7.5	No need to duplicate rules already established in Member States. Only useful if existing rules are replaced.	Partly negative	Aero-Club Switzerland (159), BALPA (626), ECOGAS (796), Cathay Pacific Airways (899)
7.6	Not clear that operating restrictions need to be regulated by EASA.	Partly negative	UK CAA (270, 271)
7.7	No need for operational restrictions of GA.	Negative	Light Aircraft Association (534)
7.8	EASA should not become responsible.	Negative	LBA (303)
8	A. EXPLANATORY NOTE – IV. Content of the Notice of Proposed amendment – Scope – Economic measures		
8.1	The proposal not to address economic measures is supported.	Positive	FRAPORT (66), Aero-Club of Switzerland (124), UK CAA (273), DAeC Deutscher Aero Club (541), NATS (667)
8.2	All extensions relative to the operations and their management should be outside the remit of EASA.	Neutral	Dassault Aviation (919)
8.3	Any regulation should have no impact on operations and only minimal impact in total.	Neutral	KLM (16)
8.4	The economic measures are already drafted and in circulation.	Neutral	ECOGAS (797)
8.5	The rationale of paragraph 31 related to trade-offs between safety and economic measures raises serious concern.	Negative	Airbus (352), ADV (568), British Airways (582)
9	A. EXPLANATORY NOTE – IV. Content of the Notice of Proposed amendment – Environmental objectives		
9.1	The possibility of tighter standards in the Community than under ICAO in some areas has some attractive aspects (comment on paragraph 33).	Positive	UK CAA (274)
9.2	Consider also health hazards for crew and	Neutral	W. Gessky (613)

No.	Comment	Valuation (see ⁴)	Provided by (comment # in brackets)
	passengers from high ozone concentration, cosmic radiation and dangerous goods (comment on paragraph 35)		
9.3	Any deviation from ICAO standards has to take into account fair competition on the world market and economic aspects (comment on paragraph 33).	Neutral	Dassault Aviation (950)
9.4	Tasks in the essential requirements according to Annexes I, II and IV should not be duplicated in the essential requirements for environmental protection (comment on paragraph 37).	Partly negative	W. Gessky (614)
9.5	It seems strange that EASA needs this NPA to reconfirm health hazards related to noise and emissions (comment on paragraph 35).	Partly negative	KLM Engineering & Maintenance (170), AEA (1005)
9.6	ICAO is the best place for setting standards and recommended practices to ensure worldwide consistency of aviation rules (comment on paragraph 33).	Partly negative	L. Hjelmsberg (91), Airbus (353, 354), ADV (605), UK Department of Transport (709), Rolls Royce (733), European Regions Airline association (867), Cathay Pacific Airways (900), Dassault Aviation (920)
9.7	The simplest way to be consistent with the ICAO framework and to avoid penalising the European industry is to adopt ICAO standards (comment on paragraph 34).	Partly negative	KLM Engineering & Maintenance (169), AEA (1005)
9.8	Keep Article 6 as it is. In addition, requirements should be written for products not covered in ICAO Annex 16 (comment on paragraph 34).	Partly negative	W. Gessky (612)
9.9	Retroactive criteria to environmental protection requirements as a systematic policy are not realistic (comment on paragraph 36).	Negative	Airbus (356), GAMA (741)
9.10	The content of paragraph 37 (the relation between environmental protection and safety) raises (serious) concern.	Negative	Aero-Club of Switzerland (125), KLM Engineering & Maintenance (171), Airbus (357); NATS (669), Rolls Royce (732), GAMA (741), Dassault Aviation (920), AEA (1005)
9.11	Paragraphs 32, 33, 34 and 35 are inappropriate, show lack of scientific and statistical evidence and should be deleted.	Negative	IFTCA (510)
10	A. EXPLANATORY NOTE – IV. Content of the Notice of Proposed amendment – Implementation means		
10.1	Implementation means already established for other domains should be applied.	Neutral	Royal Aeronautical Society (30)
10.2	The Commission has already these powers (comment on paragraph 38).	Neutral	FRAPORT (68)
10.3	Synergies between safety and environment can be acceptable for either environment or economic reason (comment on	Neutral	BALPA (629)

No.	Comment	Valuation (see ⁴)	Provided by (comment # in brackets)
	paragraph 39).		
10.4	Other oversight options, if any, should be described (comment on paragraph 39).	Neutral	UK CAA (277)
10.5	Delegation of certification functions from the Agency to assessment bodies is not supported (comment on paragraph 38).	Negative	W. Gessky (615)
10.6	Executive powers should not be given to the Commission.	Negative	UK General Aviation Awareness Council (399)
11	A. EXPLANATORY NOTE – IV. Content of the Notice of Proposed amendment – Implementation means – Product design, manufacture and maintenance		
11.1	The proposals contained in this section are supported.	Positive	Royal Aeronautical Society (31)
11.2	The proposals are supported (comment on paragraphs 43 to 46).	Positive	LBA (308)
11.3	(Some) Certification by industry is supported (comment on paragraph 47).	Positive	Light Aircraft Association (410); GAMA (481)
11.4	Environmental aspects of production and maintenance are not aviation specific.	Neutral	S. Wenger (85)
11.5	Questions related to assessment bodies to be answered by the Agency.	Neutral	Aero-Club Switzerland (126)
11.6	ICAO standards for light aircraft have to be strengthened up.	Neutral	UFCNA (153)
11.7	Discussion on expanding NAAs responsibility for issuance of noise certificates is needed (comment on paragraph 40).	Neutral	GAMA (481)
11.8	Full transposition of ICAO Annex 16 could lead to delay applications of the amendments (comment on paragraph 41).	Neutral	Dassault Aviation (921)
11.9	Germany has noise requirements for ultra light aircraft in place (comment on paragraph 43).	Neutral	DAeC Deutscher Aero Club (543)
11.10	Third-country products, parts and appliances should be manufactured under the same environmental protection requirements as in the EU (comment on paragraph 46).	Neutral	W. Gessky (617)
11.11	It is not clear what the key issues for the envisaged regulations are (comment on paragraph 41).	Partly negative	LBA (306)
11.12	It is not clear why CS-E includes fuel venting and engine emissions (comment on paragraph 41).	Partly negative	Rolls Royce (728)
11.13	Retrospective requirements are not practical (comment on paragraph 43).	Partly negative	Light Aircraft Association (410)
11.14	Do not modify Article 5. Do rewrite Article 6 (comment on paragraph 43).	Negative	Rolls Royce (727)
11.15	Maintenance and repair should not be regulated concerning environmental matters	Negative	KLM Engineering & Maintenance (173), European Regions Airline

No.	Comment	Valuation (see ⁴)	Provided by (comment # in brackets)
	(comment on paragraph 46).		association (869), AEA (1008)
11.16	A (general) approval for assessment bodies is not acceptable (comment on paragraph 47).	Negative	LBA (308), BALPA (630)
11.17	Rulemaking should not be a role for the Agency but for the Commission (comment on paragraph 47).	Negative	W. Gessky (619)
12	A. EXPLANATORY NOTE – IV. Content of the Notice of Proposed amendment – Implementation means – Aerodromes		
12.1	The proposals of the NPA are supported.	Positive	Royal Aeronautical Society (33), Aero-Club of Switzerland (162)
12.2	The proposals would bring no change to the current situation concerning ICAO standards.	Neutral	FRAPORT (70)
12.3	Impact assessment would be welcome.	Neutral	UK CAA (279), NATS (672)
12.4	Airport issues should remain local matters.	Partly negative	L. Hjelmsberg (94)
12.5	EASA should not regulate environmental aspects of airstrips, airfields.	Negative	DAeC (545), Light Aircraft Association (602)
12.6	EASA should not regulate environmental aspects of aerodromes.	Negative	UK CAA (279)
13	A. EXPLANATORY NOTE – IV. Content of the Notice of Proposed amendment – Implementation means – Air Traffic Management (ATM) and Air Navigation Services (ANS)		
13.1	The proposals of the NPA are supported.	Positive	Royal Aeronautical Society (34)
13.2	There is potential for duplication, conflict and contradiction between SES II, SESAR and the NPA.	Partly negative	UK CAA (280), British Airways (597), NATS (673)
13.3	Leave this to SESAR.	Partly negative	Aero-Club of Switzerland (127)
13.3	The general explanatory description is lacking scientific explanation.	Negative	IFATCA (510)
14	A. EXPLANATORY NOTE – IV. Content of the Notice of Proposed amendment – Implementation means – Air operations		
14.1	The proposals of the NPA are supported.	Positive	Royal Aeronautical Society (35)
14.2	The restrictions applied to non-European operators will simplify competition.	Neutral	Dassault Aviation (922)
14.3	There is no indication of benefits.	Partly negative	UK CAA (281)
14.4	Concerns that measures will lead to market distortion and that EU carriers will be penalised.	Partly negative	British Airways (595), European Regions Airline Association (872)
14.5	The proposals are not supported.	Negative	L. Hjelmsberg (95)

No.	Comment	Valuation (see ⁴)	Provided by (comment # in brackets)
15	A. EXPLANATORY NOTE – IV. Content of the Notice of Proposed amendment – Implementation means – Environmental awareness of persons active in the aviation system		
15.1	The proposals of the NPA are supported.	Positive	Aero-Club of Switzerland (128), LBA (310)
15.2	Agreement that a dedicated licensing system for environmental knowledge is disproportionate.	Positive	Royal Aeronautical Society (36)
15.3	Proposal does not seem entirely unreasonable.	Partly positive	Light Aircraft Association (610)
15.4	If EU carriers have to comply, then rules should also be applicable to third countries.	Neutral	European Regions Airline Association (873)
15.5	Do not include maintenance and repair.	Partly negative	KLM Engineering & Maintenance (174, 175), European Regions Airline Association (870), AEA (1009)
15.6	Proposal of EASA is not necessary.	Partly negative	UK CAA (282), GAMA (479), BALPA (633), NATS (674)
15.7	Proposal leads to additional overhead and costs.	Negative	FRAPORT (71)
16	A. EXPLANATORY NOTE – IV. Content of the Notice of Proposed amendment – Implementation means – Operating restrictions		
16.1	The proposal of the NPA is supported.	Positive	Royal Aeronautical Society (37)
16.2	Impact assessment is requested.	Neutral	NATS (675)
16.3	The proposal contains no advantages.	Partly negative	UK CAA (283)
16.4	The proposal will almost certainly result in a proliferation on environmental standards within the EU.	Partly negative	Cathay Pacific Airways (901)
17	A. EXPLANATORY NOTE – IV. Content of the Notice of Proposed amendment – Implementation means – Functions of the Agency		
17.1	Competence among regulators is needed.	Neutral	L. Hjelmberg (96)
17.2	Unequivocal statements about the intentions of the legislator are not appropriate.	Partly negative	UK CAA (284)
17.3	Safety has to be considered first (where safety and environmental protection conflict).	Partly negative	Royal Aeronautical Society (38), IFATCA (510), ECA (554), BALPA (634), NATS (676), Rolls Royce (725), GAMA (768), Aero-Club of Switzerland (789), MT-Propeller (996)
17.4	No greater regulation, but better regulation.	Negative	British Airways (584)

No.	Comment	Valuation (see ⁴)	Provided by (comment # in brackets)
18	B. DRAFT ESSENTIAL REQUIREMENTS B. DRAFT ESSENTIAL REQUIREMENTS – I. Description of the essential requirements		
18.1	Complex task that requires significant professional input and intensive consultation.	Neutral	British Gliding Association (146)
18.2	A gradual approach is proposed.	Partly negative	Airbus (516)
18.3	No additional regulations for ultra light aircraft are needed in Germany.	Partly negative	DAeC Deutscher Aero Club (547)
18.4	The present proposals need (drastic) revision.	Negative	UK General Aviation Awareness Council (400), IACA (816)
18.5	The current NPA is not acceptable.	Negative	IFATCA (511)
19	B. DRAFT ESSENTIAL REQUIREMENTS – I. Description of the essential requirements - Introduction		
19.1	EASA must satisfy itself that pragmatic implementing rules can be developed.	Neutral	Royal Aeronautical Society (39)
19.2	The term "inappropriate design or operation of an aerodrome" needs to be clarified.	Partly negative	FRAPORT (73), European Regions Airline Association (874)
19.3	More consistency is needed in the use of "environment" as distinct from "human health".	Partly negative	University of Leiden (113)
19.4	It is misleading to suggest that industry has been somehow negligent.	Partly negative	Rolls Royce (724)
19.5	The description of the essential requirements completely contradicts the previously stated purpose.	Negative	GAMA (769)
19.6	EASA should not get involved.	Negative	KLM (15, 17)
20	B. DRAFT ESSENTIAL REQUIREMENTS – I. Description of the essential requirements – Product design, manufacture and maintenance		
20.1	A requirement for the integration of noise reducing add-ons is needed.	Neutral	J. Beckers UECNA (229)
20.2	Not clear why the NPA contains these design and production details.	Partly negative	Aero-Club of Switzerland (130)
20.3	To some extent, the discussion is irrelevant, some of the measures described would happen anyway.	Partly negative	Europeans Regions Airline Association (875)
20.4	Some of the text is too simplistic.	Partly negative	Rolls Royce (723), Dassault Aviation (924)
20.5	It is inappropriate for EASA to prescribe how engines should be designed.	Negative	L. Hjelmborg (97), ATA (501), GAMA (665)
20.6	Requirements are too prescriptive, list is not exhaustive.	Negative	Airbus (358)

No.	Comment	Valuation (see ⁴)	Provided by (comment # in brackets)
20.7	EASA should limit its activity to an active role in participating in ICAO/CAEP work.	Negative	ATA Air Transport Association of America (501)
21	B. DRAFT ESSENTIAL REQUIREMENTS – I. Description of the essential requirements - Aerodromes		
21.1	Strict control of EASA rules for aerodromes will be necessary. This control shall be carried out by EASA.	Positive	J. Beckers UECNA (230)
21.2	In parts measures are described, which are already in place.	Partly negative	FRAPORT (74)
21.3	EASA to be more precise in the description.	Partly negative	Aero-Club of Switzerland (131)
21.4	"Technical" concerns concerning the description or the proposals made.	Partly negative	IFATCA (510), BALPA (635), Rolls Royce (722), European Regions Airline Association (876), Dassault Aviation (926)
22	B. DRAFT ESSENTIAL REQUIREMENTS – I. Description of the essential requirements – Air Traffic Management (ATM) and Air Navigation Services (ANS)		
22.1	EASA is encouraged to engage with EUROCONTROL/SESAR.	Neutral	Airbus (361), ATA (515), Aero-Club of Switzerland (790)
22.2	Concern that additional information cannot be displayed without the display becoming cluttered.	Partly negative	BALPA (637)
22.3	Methodology and scientific evidence are missing.	Negative	IFATCA (510)
23	B. DRAFT ESSENTIAL REQUIREMENTS – I. Description of the essential requirements – Air operations		
23.1	Clarification needed concerning some of the measures proposed.	Partly negative	BALPA (640), Rolls Royce (720), Cathay Pacific Airways (903), Dassault Aviation (927)
23.2	Serious concern that safety is not considered first.	Negative	L. Hjelmsberg (99), BALPA (640), European Regions Airline Association (877)
24	B. DRAFT ESSENTIAL REQUIREMENTS – I. Description of the essential requirements – Environmental awareness of persons active in the aviation system		
24.1	The proposals of the NPA are supported.	Positive	J. Beckers UECNA (233)
24.2	Stakeholders already have environmental management systems.	Neutral	ATA (507)
24.3	Concerns with the proposals made.	Negative	GAMA (770)

No.	Comment	Valuation (see ⁴)	Provided by (comment # in brackets)
25	B. DRAFT ESSENTIAL REQUIREMENTS – I. Description of the essential requirements – Operating restrictions		
25.1	Different areas for limitation of aircraft operations should be considered.	Positive	J. Beckers UECNA (234)
25.2	Clarification on the intent is needed.	Neutral	Airbus (362)
25.3	EASA should consider modifying rather than restricting operations.	Partly negative	British Gliding Association (147)
25.4	(Serious) Concerns with the proposals made.	Negative	KLM (18), Aero-Club of Switzerland (132), Light Aircraft Association (439), BALPA (648), Dassault Aviation (928)
26	B. DRAFT ESSENTIAL REQUIREMENTS – II. Essential Requirements		
26.1	Include in the essential requirements for environmental protection only tasks not covered in other requirements.	Partly negative	W. Gessky (712)
26.2	Many of the provisions require much more specificity and guidance.	Negative	IATA (386)
27	B. DRAFT ESSENTIAL REQUIREMENTS – II. Essential Requirements – 1. Product design, manufacture and maintenance		
27.1	EASA should have no competence on all CO2 related matters.	Neutral	IACA (817)
27.2	Necessity of reducing emissions as much as possible. It is essential to define these emissions.	Neutral	KLM Engineering & Maintenance, AEA (1011)
27.3	Old engines should be able to continue flying.	Neutral	Light Aircraft Association (415)
27.4	APUs might be considered.	Partly negative	Francis Fagegaltier Services (1)
27.5	High performance un-powered air sports aircraft to be excluded.	Partly negative	DAeC (552)
27.6	A number of basic considerations and parameters are listed that all manufacturers must routinely address.	Partly negative	GAMA (483), Europeans Regions Airline Association (880)
27.7	In parts the requirements are nothing new in Europe.	Partly negative	MT-Propeller (990)
27.8	There should be limits on the (financial) effort to design aircraft with noise and emissions as low as possible.	Partly negative	G. Hayward (4), British Gliding Association (224), Eurocopter (187), AgustaWestland (687)
27.9	Reference should not be made to specific design features or technologies.	Partly negative	Rolls Royce (719), Dassault Aviation (929, 930, 931), LBA (311), ATA Air Transport Association of America (501), Airbus (363)
27.10	This section is widely written and not specific which makes it difficult to follow exactly.	Partly negative	AOPA Sweden (964)

No.	Comment	Valuation (see ⁴)	Provided by (comment # in brackets)
27.11	This section is unnecessarily complex, too detailed and overly prescriptive.	Negative	CFM (836), Airbus (363)
27.12	Do not use the term "as quiet as possible" in 1.a.	Negative	IACA (817), KLM Engineering & Maintenance (177), Light Aircraft Association (413), Aerospace Industries Association (450), GAMA (777), European Regions Airline Association (878), AEA (1010)
27.13	Do the requirements in 1.b. include all engines (turbine engines and piston engines)?	Neutral	Francis Fagegaltier Services (2)
27.14	The description of emissions species should be avoided in 1.b.	Partly negative	LBA (312)
27.15	CO2 should be explicitly mentioned in 1.b.	Partly negative	SAS Norway (110), AEA (1011), ECA (556)
27.16	Why are lead, particles and CO2 missing in 1.b.?	Neutral	L. Hjelmsberg (100)
27.17	More precise lower level requirements will be needed in order to comply with the requirement of performing trade-offs in 1.d.	Partly negative	Eurocopter (188, 189), Agusta Westland (688)
27.18	1.d. and 1.e. are essentially redundant.	Negative	Aerospace Industries Association (468)
27.19	1.e. should be deleted, because already covered.	Negative	Eurocopter (190), AgustaWestland (690)
27.20	The phrase "total range of normal operating conditions" in 1.f. is too broad.	Negative	Eurocopter (191), Aerospace Industries Association (455), AgustaWestland (691)
27.21	It is unclear what is meant by "particularly harmful" in 1.g.	Partly negative	British Gliding Association (225), Light Aircraft Association (416), Aerospace industries Association (456), Rolls-Royce (718), GAMA (784)
27.22	(Serious) concern with 1.g.	Negative	KLM Engineering & Maintenance (179), Airbus (364), ATA (502), European Regions Airline Association (881), Dassault Aviation (932), MT-Propeller (991), AEA (1012)
27.23	Rephrase 1.h.	Partly negative	Eurocopter (192), Aerospace Industries Association (457), AgustaWestland (692)
27.24	1.h., 1.j. and 1.k. would involve EASA in issues relating to warranties and content of manuals.	Partly negative	ATA Air Transport Association of America (503)
27.25	It is unclear what is meant with "all means necessary" in 1.j.	Partly negative	KLM Engineering & Maintenance (180), Aerospace Industries Association (459), ATA (505, 506), Rolls Royce (717), European Regions Airline Association (882), AEA (1013)

No.	Comment	Valuation (see ⁴)	Provided by (comment # in brackets)
27.26	A compliance with 1.k. means a non-compliance with 1.j.	Partly negative	Dassault Aviation (935)
28	B. DRAFT ESSENTIAL REQUIREMENTS – II. Essential Requirements – 2. Aerodromes		
28.1	Further clarification is needed.	Neutral	Aerospace Industries Association (460)
28.2	ICAO guidance has to be taken into consideration.	Neutral	ATA (508), Dassault Aviation (940)
28.3	More proportionality is required.	Partly negative	Light Aircraft Association (418), British Gliding Association (226)
28.4	Safety has to be considered first.	Partly negative	Rolls Royce (716), ECA (557, 558, 559), Airbus (367)
28.5	Better to be regulated by national laws and locally.	Partly negative	ATA Air Transport Association of America (508, 509), AOPA-Sweden (965)
28.6	EASA should not get involved.	Negative	LBA (314, 315, 316, 318, 319, 320, 321, 322, 323, 324), AOPA-Sweden (965), European Regions Airline Association (883)
28.7	(Serious) concerns with different proposals made in 2.a. to 2.j.	Negative	FRAPORT (76, 77, 78), ADV (590, 591), Light Aircraft Association (639, 579), Royal Aeronautical Society (40), Airbus (366, 368), EUROCONTROL (426, 427), Dassault Aviation (937, 938), Eurocopter (193), AgustaWestland (693), ECA (560, 561, 562), IATA (389)
28.8	Proposals for changes within the text in 2.a., 2.c. and 2.i.	Neutral	EUROCONTROL (425, 426, 427)
28.9	2.e. is supported.	Positive	FRAPORT (79), Dassault Aviation (939)
28.10	The proposal in 2.g. is absolutely impractical.	Negative	Light Aircraft Association (638)
28.11	2.i. is agreed with as an overall target.	Positive	FRAPORT (80)
29	B. DRAFT ESSENTIAL REQUIREMENTS – II. Essential Requirements – 3. Air Traffic Management (ATM) and Air Navigation Services (ANS)		
29.1	A common European system should exist for ATM and ANS.	Neutral	AOPA Sweden (966)
29.2	EASA should liaise with EUROCONTROL on SES and SESAR.	Neutral	ATA (515), Dassault Aviation (941)
29.3	Safety has to be considered first.	Partly negative	Rolls Royce (715)
29.4	Proposals for changes within the text in 3.a. to 3.f.	Neutral	EUROCONTROL (428, 429, 430, 431, 432, 434), British Gliding

No.	Comment	Valuation (see ⁴)	Provided by (comment # in brackets)
			Association (227)
29.5	(Serious) concerns with different proposals made in 3.a. to 3.f.	Negative	Royal Aeronautical Society (41), Airbus (369), ECA (563), ADV (594), Light Aircraft Association (636, 442, 621), Aero-Club of Switzerland (791), Eurocopter (194), AgustaWestland (694), AOPA Sweden (967, 968)
29.6	Clarification needed for 3.a.3.	Neutral	FRAPORT (81)
29.7	Significant science and oversight is necessary for 3.a.3.	Partly negative	Cathay Pacific Airways (904)
29.8	Exclude un-powered aircraft and ultra light aircraft with low weight limits and capacities in 3.c.	Neutral	DAeC Deutscher Aero Club (555)
29.9	Concern with the term "all aircraft" in 3c.	Partly negative	European Regions Airline Association (884)
30	B. DRAFT ESSENTIAL REQUIREMENTS – II. Essential Requirements – 4. Air operations		
30.1	Technical feasibility and economic reasonableness is believed to be also applicable to air operations.	Neutral	Aerospace Industries Association (464)
30.2	Some expressions used need additional explanation.	Neutral	AEA (1014), KLM Engineering & Maintenance (181), Airbus (370), IATA (390)
30.3	Further clarification needed.	Neutral	BALPA (654), AOPA Sweden (973)
30.4	EU OPS-1 should be amended appropriately in accordance with the proposals made.	Neutral	SAS Norway (110)
30.5	Not pilots should be responsible, but air operators.	Partly negative	BDF German Airline Association (210)
30.6	The section lacks any requirements on aircraft operators.	Partly negative	ECA (564), FRAPORT (82)
30.7	Safety has to be considered first.	Partly negative	Rolls Royce (714), Dassault Aviation (942, 944), ECA (565), European Regions Airline Association (888)
30.8	The whole section should be deleted, and instead some short paragraphs should be added stating that negative effects to the environment should be minimised as much as possible.	Negative	AOPA Sweden (969)
30.9	Brutal transposition of requirements from airworthiness to environment seems to border on the overkill.	Negative	Dassault Aviation (945)
30.10	Proposals for changes within the text in 4.a. to 4.f.	Neutral	Royal Aeronautical Society (42, 43, 44, 45), EUROCONTROL (435, 436, 437), Dassault Aviation (942)
30.11	(Serious) concerns with different proposals	Negative	L. Hjelmberg (101), Light

No.	Comment	Valuation (see ⁴)	Provided by (comment # in brackets)
	made in 4.a. to 4.f.		Aircraft Association (444, 445, 627), ATA (494, 495, 496, 497, 498, 499), Rolls Royce (721), European Regions Airline Association (885, 887, 889), Cathay Pacific Airways (905), AOPA Sweden (970, 972, 974, 975), Airbus (371), BALPA (651, 656), Dassault Aviation (943, 946), MT-Propeller (992, 993), Airbus (372), British Gliding Association (228), ADV (600)
30.12	Delete 4.a.2.	Negative	Eurocopter (195), AgustaWestland (695)
30.13	Exclude un-powered aircraft and ultra light aircraft with low weight limits and capacities in 4.b. and in 4.e.	Neutral	DAeC Deutscher Aero Club(555)
30.14	The requirements in 4.b.3. may cause difficulties for helicopter and heliport operations.	Partly negative	Aerospace Industries Association (466)
30.15	There is only one consideration regarding the weather and that is safety (on 4.b.3.).	Negative	AOPA Sweden (971)
30.16	The requirements in 4.f. are too prescriptive and provide means of compliance instead of showing the general objective.	Negative	Airbus (373)
30.17	4.f.4. is not specific to environmental protection.	Partly negative	Eurocopter (196), AgustaWestland (696)
31	B. DRAFT ESSENTIAL REQUIREMENTS – II. Essential Requirements – 5. Environmental awareness of persons active in the aviation system		
31.1	The proposals are supported.	Positive	MT-Propeller (994), LBA (325, 326, 327)
31.2	It is proposed that persons active and responsible for noise and emissions shall develop measures based upon health and environmental risk assessment.	Neutral	University of Leiden (117)
31.3	The proposals made should be connected to the future EASA "Management Systems" Regulation.	Neutral	Eurocopter (197), AgustaWestland (697, 698, 699)
31.4	Guidance material should be provided.	Neutral	KLM Engineering & Maintenance (183, 184), AEA (1016)
31.5	Training requirements have not been specified.	Partly negative	AEA (1015), KLM Engineering & Maintenance (182)
31.6	Airlines and other aviation stakeholders already have an Environmental Management System	Partly negative	ATA (507)
31.7	The proposal goes far beyond reasonable measures.	Negative	ECA (566), BALPA (658), AOPA Sweden (976), L. Hjelmberg (102)
31.8	Proposals for changes within the text in 5.a.	Neutral	Eurocopter (198),

No.	Comment	Valuation (see ⁴)	Provided by (comment # in brackets)
	to 5.c.		AgustaWestland (700)
31.9	(Serious) concerns with different proposals made in 5.a. to 5.c.	Negative	IATA (391), Aerospace Industries Association (465), European Regions Airline Association (890), ADV (598)
31.10	5.c. is not necessary.	Partly negative	European Regions Airline Association (891)
32	B. DRAFT ESSENTIAL REQUIREMENTS – II. Essential Requirements – 6. Operating restrictions		
32.1	No objections to the proposals.	Partly positive	AOPA Sweden (977)
32.2	Further clarification needed.	Neutral	Eurocopter (200), IATA (392), Aerospace Industries Association (467), AgustaWestland (702)
32.3	The operating restrictions should not be considered as an alternative, but as a pillar for an integrated approach.	Neutral	BCAA (632)
32.4	Proposals are disproportionate.	Partly negative	Light Aircraft Association (419)
32.5	Providing a list is too prescriptive.	Partly negative	Airbus (374)
32.6	The proposals made should be included into the Essential Requirements related to air operations.	Partly negative	Eurocopter (199), AgustaWestland (701)
32.7	In parts the proposals are in contradiction to other proposals made elsewhere in the NPA.	Partly negative	BDF German Airline Association (211)
32.8	Evaluation for system wide impact is needed.	Neutral	Dassault Aviation (947)
32.9	The issue is already covered in EU Directive 2002/30/EC. No need for EASA to cover the task.	Negative	LBA (328)
32.10	The proposals are not supported.	Negative	Aero-Club of Switzerland (134), ATA Air Transport Association of America (500), ADV (603), MT-Propeller (995)

VI. Table of responses to questions raised in NPA 2008-15**Table 2: Responses to questions raised in NPA 2008-15**

Question	Response/ number of responses	Provided by (comment # in brackets)
Question 1: Should ultra light aircraft, produced in an industrial manner, be subject to common environmental rules?	Yes/12	S. Wenger (46), SAS Norway (105), UFCNA (152), BDF Germany (205), J. Beckers UECNA (215), FOCA Switzerland (288), ECA European Cockpit Association (548), W. Gessky (596), UK Department for Transport (703), Rolls Royce (739), ACI Europe (979), Environmental Court Vänersborg Sweden (1017)
	No/25	KLM (5), FRAPORT (53), L. Hjelmberg (87), Aero-Club of Switzerland (155), UK CAA (260), BMVBS Germany (339), J. Fridrich (345), Light Aircraft Association of the Czech Republic (346), Europe Air Sports PM (348), General Aviation Awareness Council UK (395), Light Aircraft Association (404), GAMA (473), AESA (517), Royal Danish Aeroclub (522), DAeC (532), ADV (570), Flughafen Paderborn Lippstadt (641), AgustaWestland (705), APAU (779), IACA (811), Munich Airport (824), DGAC France (838), Dassault Aviation (906), AOPA Sweden (957), MT-Propeller (85)
	Regulate proportionately/6	Royal Aeronautical Society (23), British Gliding Association (141), Swedish Transport Agency (329), ECOGAS (792), CAA Finland (819), CAA NL (844)
	ICAO responsibility/1	ATA Air Transport Association of America (489)
	No (firm) opinion/7	EHPU (135), IATA (381), Norwegian Ministry of Transport and Communications (573), British Airways (586), NATS (655), Europeans Regions Airline Association (851), AEA (999)
Question 2a: Should airport design and airport operations be regulated for their environmental impact through the EASA system?	Yes/10	Royal Aeronautical Society (24), ADVOCNAR (201), BDF (206), J. Beckers UECNA (217), LADACAN (285), Bae Systems (440), AESA (518), Royal Danish Aeroclub (523), DAeC (535), Norwegian Ministry of Transport and Communications (574)
	Yes, in general/2	Rolls Royce (737), Dassault Aviation (907)
	No/27	KLM (8), S. Wenger (47), FRAPORT (59), L. Hjelmberg (88), SAS Norway (106), British Gliding Association (142), AOPA Sweden (149), Aero-Club of Switzerland (156), UK CAA (265), FOCA Switzerland (289), LBA (295), BMVBS Germany (340), General Aviation Awareness Council UK (396), Light Aircraft Association (406), GAMA (475), ECA (549), ADV (572), W. Gessky (601), Flughafen Paderborn Lippstadt (642), NATS (659), UK Department for Transport (704), S. Routama (806), IACA (812), Munich Airport (825), DGAC France (839), CAA NL (845), Environmental Court Vänersborg Sweden (1018)
	Only if certain conditions are met/3	Swedish Transport Agency (330), ATA (490), AEA (1000)
	Regulate proportionately/12	EHPU (136), IATA (382), J. Fridrich (474), British Airways (587), Europe Air Sports PM (755), Light Aircraft Association of the Czech Republic (762), APAU (776), ECOGAS (794), European Regions Airline Association (853), AOPA Sweden (958), ACI Europe (980), MT-Propeller (986)

Question	Response/ number of responses	Provided by (comment # in brackets)
	No (firm) opinion/2	FAA (743), CAA Finland (820)
Question 2b: Is land use planning around aerodromes better regulated at horizontal level, taking into account all sources of noise/pollution, rather than from an aviation perspective only?	Yes/34	KLM (8), Royal Aeronautical Society (24), S. Wenger (47), FRAPORT (59), SAS Norway (106), British Gliding Association (142), AOPA Sweden (149), Aero-Club of Switzerland (156), Eurocopter (185), ADVOCNAR (201), BDF (206), J. Beckers UECNA (217), UK CAA (266), FOCA Switzerland (289), Swedish Transport Agency (330), General Aviation Awareness Council UK (396), DAeC (535), ADV (572), Norwegian Ministry of Transport and Communications (574), British Airways (587), W. Gessky (601), Flughafen Paderborn Lippstadt (642), NATS (659), Agusta Westland (685), UK Department for Transport (704), Rolls Royce (737), S. Routama (806), CAA Finland (820), Munich Airport (825), DGAC France (839), AOPA Sweden (958), ACI Europe (980), AEA (1000), Environmental Court Vänersborg Sweden (1018)
	No/3	LADACAN (285), LBA (295), Light Aircraft Association (406)
	Regulate pro- portionately/2	IATA (382), ECA (549)
	To be left to national, regional, local authorities/10	BMVBS Germany (340), Bae Systems (440), J. Fridrich (474), ATA (491), Europe Air Sports PM (755), Light Aircraft Association of the Czech Republic (762), APAU (776), IACA (812), CAA NL (845), European Regions Airline Association (853)
	Further explanation needed/1	AESA (518)
	No (firm) opinion/2	EHPU (136), FAA (743)
Question 3: Should operating restrictions be subject of common rules under the EASA system?	Yes/9	Royal Aeronautical Society (28), Eurocopter (186), ADVOCNAR (202), BDF (207), Bae Systems (443), AESA (519), Royal Danish Aeroclub (524), Norwegian Ministry of Transport and Communications (576), AgustaWestland (684)
	No/27	KLM (12), FRAPORT (65), SAS Norway (107), UK CAA (272), FOCA Switzerland (290), LBA (296), Swedish Transport Agency (331), IATA (383), General Aviation Awareness Council UK (397), Light Aircraft Association (408), IFATCA (510), ECA European Cockpit Association (550), ADV (580), British Airways (589), Flughafen Paderborn Lippstadt (643), NATS (666), FAA (744), Aero-Club of Switzerland (782), ECOGAS (800, 801), S. Routama (807), IACA (813), Munich Airport (826), European Regions Airline Association (866), Dassault Aviation (908), ACI Europe (981), MT-Propeller (987), AEA (1004)
	Only if kept to a minimum/1	AIA (449)
	Only certain rules/3	BMVBS Germany (341), W. Gessky (604), AOPA Sweden (961)
	Regulate pro- portionately/3	British Gliding Association (143), DAeC (540), Environmental Court Vänersborg Sweden (1019)
	To be left to national, regional, local	S. Wenger (50), L. Hjelmberg (90), J. Fridrich (480), ATA (492), Europe Air Sports PM (757), Light Aircraft Association of the Czech Republic (764), APAU (774), CAA Finland (821), DGAC France

Question	Response/ number of responses	Provided by (comment # in brackets)
	authorities/10	(840), CAA NL (846)
	Further information needed/1	EHPU (137)
Question 4: Do the attached essential requirements meet the criteria described here above and do they constitute a good basis for the regulation of aviation environmental protection within the envisaged scope of the extended EASA system?	Yes/0	---
	Yes, in general/11	Royal Aeronautical Society (29), ADVOCNAR (203), BDF (208), Eurocopter (214), J. Beckers UECNA (236), LBA (297), BMVBS Germany (342), Aerospace Industries Association (451), The Norwegian Ministry of Transport and Communications (577), AgustaWestland (683), CAA Finland (822)
	No/11	University of Leiden (118), Aero-Club of Switzerland (160), KLM Engineering & Maintenance (172), UK CAA (276), Swedish Transport Agency (332), IFATCA (510), FAA (745), GAMA (746), IACA (814), European Regions Airline Association (868), AEA (1006)
	Regulate proportionately/5	EHPU (138), J. Fridrich (486), DAeC (542), Europe Air Sports PM (758), Light Aircraft Association of the Czech Republic (765)
	(Serious) Concerns with the proposal/19	SAS Norway (108), Light Aircraft Association (409), Bae Systems (446), AESA (528), ECA (551), ADV (583), British Airways (592), W. Gessky (608), Flughafen Lippstadt Paderborn (644), NATS (670), Skyguide (677, 679), Rolls Royce (730), ECOGAS (798), Munich Airport (827), DGAC France (841), CAA NL (847), Dassault Aviation (909), MT-Propeller (988)
	No need for EU (overall) environmental protection essential requirements/8	KLM (13), FRAPORT (67), S. Wenger (83), FOCA Switzerland (291), IATA (384), General Aviation Awareness Council UK (398), ATA (493), S. Routama (808)
	No response (at this stage) or no opinion/3	AOPA Sweden (962), ACI Europe (982), Royal Danish Aeroclub (525)
Question 5: Should powers be given to assessment bodies to verify that aircraft below 2000 kg comply with the environmental requirements and should the assessment bodies issue the related approvals? Should accreditation of such assessment bodies be done	Yes/12	KLM (14), S. Wenger (84), SAS Norway (109), UFCNA (154), BDF (209), FOCA Switzerland (292), Light Aircraft Association (411), Eurocopter (606), Europe Air Sports PM (759), GAMA (767), APAU (772), S. Routama (809)
	Yes, in principle/7	J. Fridrich (487), ECA (553), UK Department for Transport (710), Light Aircraft Association of the Czech Republic (766), European Sailplane Manufacturers (785), CAA NL (848), MT-Propeller (989)
	No/6	Aero-Club of Switzerland (161), LBA (298), BMVBS Germany (343), W. Gessky (607), DGAC France (842), AOPA Sweden (963)
	Concerns if powers are given/2	Rolls Royce (726), Environmental Court Vänersborg Sweden (1021)
	Regulate proportionately/5	EHPU (139), Royal Danish Aeroclub (526), DAeC (544), GAMA (767), ECOGAS (799)
	EASA to decide/1	J. Beckers UECNA (237)
	(Further)	British Gliding Association (145), Swedish Transport Agency (333),

Question	Response/ number of responses	Provided by (comment # in brackets)
by the Agency?	Clarification needed/3	European Regions Airline Association (871)
	Not relevant/1	AESA (520)
	No (firm) opinion/8	UK CAA (278), IATA (385), Norwegian Ministry of transport and Communication (578), British Airways (593), NATS (671), IACA (815), Dassault Aviation (910), AEA (1007)
	The responses given need explanation/7	Royal Aeronautical Society (32), FRAPORT (69), L. Hjelmberg (93), ADV (585), Flughafen Paderborn Lippstadt (645), Munich Airport (828), ACI Europe (983)

VII. CRD table of comments

(General Comments)

-

comment 19

comment by: *Samuel WENGER*

The main environmental challenge for Civil Aviation - in my view - still is aircraft noise. It is immediately perceived by people, mainly in the vicinity of aerodromes, and triggers negative reactions towards air operations and their infrastructure.

Noise is a very much layered phenomenon. The main components are of technical, operational, physical, psychologic, cultural (social) and economic nature. Although I agree with the general aim of this NPA - that is standardisation of environment protection measures in view of free movement of goods, services and persons - I will express some concerns in respect to the effects of standardisation.

Obviously, all layers and/or measures which have psychological or cultural components can not really be standardised without a considerable risk of negative political reactions at local level. Besides such 'soft' factors, it must also be considered that each aerodrome has its own topographic, meteorological and urban environment, to which it must be able to adapt in order to be of optimum use for the aviation community. An airport's operating rules, whether they are conditioned by its physical characteristics or its political environment, define its competitiveness. Competitiveness may perhaps be increased by the use of some accepted or recommended tools, but very unlikely by a 'standardised' access at night, for example.

I therefore advocate the creation of two generally applicable tools in lieu of European standards in addition to those already defined through CS 34 and 36:

The first should be a widely supported catalogue of facts and arguments around aircraft noise and its mitigation (likewise for air pollution, energy, climate). Such a catalogue would help responsible aviation people to explain and defend their cause, but also increase the sensitivity and competence towards the environment of aviation actors themselves.

The second should be a kind of toolbox of mitigation measures. This toolbox should mainly help airport managers to analyse and optimise the operation of their airport in respect to noise/annoyance. Besides indicating possible mitigating measures for specific problems, it would be necessary to enumerate the positive and negative effects as well as the limitations of effectivity of each mitigation measure. The effectivity of measures may be physical, psychological, social, and it may vary with time, e.g. increasing traffic.

One particular aspect of standardisation which should be considered by EASA is the handling of environmental matters at airports near national borders. Standardisation in this context should mean that a State shall not impose conditions to an airport near its border it would not impose to its own comparable airports.

comment 20

comment by: *Royal Aeronautical Society***General Comment**

Rules developed for environmental protection may impact adversely upon rules

developed for operational safety. It is essential that where conflict or potential conflict between the two is identified, there shall be no reduction to safety regulations without mitigation designed to contain any such impact and the insertion of a clause enabling the environmental rule to be overridden by any pilot-in-command who is prompted by safety concerns. Significant degradation of rules prescribed for operational safety by rules pertaining to environmental concerns must not be permitted. The primacy of operational safety must be prescribed in the essential requirements.

comment 86

comment by: *Lars Hjelmsberg*

The NPA is completely missing in page 22, Essential requirements item 1.b the fact that for example certified unleaded aviation gasoline exists since 1981 in Europe, and this fuel already today carries the approval of engine manufacturers covers > 90 % of the world general aviation piston powered fleet. This fuel meets all standards of aviation gasoline and is fully transparent to current leaded fuel and does not even need any change to the existing fleet of aircraft neither to airframe neither to engines. Just top it up and fly. BUT aircraft manufacturers have not put this fact into their type-certificates so it cannot be used so extensively as it would be possible. Knowledge of this fact is inside EASA and in the Commission has been so for many years. If now aviation shall be regulated so in detail as the NPA 15 suggests why is the vital thing about fuels not included ??? We are also missing a discussion about flight levels, i.e. where aircraft shall fly and their effect from exhaust and emissions. A jet-aircraft is about 1000 times more dangerous for the environment when it is flying above the weather systems than if it was flying in the weather systems -- where exhaust, emissions etc would come down to the earth with weather (rain etc) instead of being put into the high altitudes where they affect the sensible ozone layer among other things. We are also missing an understanding from the authors about the volume of activities and their impact. For example in Sweden, the **annual** growth (historically) of fuel consumption of jet fuel in commercial jet aviation equals 20 years of total consumption of aviation gasoline. Or the annual use of jet fuel in Sweden equals 220 years of annual use of aviation gasoline. So in practice any regulation in the form as said in the NPA should not cover aircraft below 5.700 KG. Furthermore 70 % of all carbon dioxide is released from farming and cattle activities and only 4 % from aviation.

In Summary: The NPA 2008-15 should not result in any regulations. Regulations should come from the market and not from politicians. Instead EASA could start to ask light aircraft manufacturers (Piper, Cessna et al) in written why their aircraft don't carry type certificates for unleaded AVGAS 91/96 UL when engine manufacturers already > 15 years ago approved engines for this fuel. For example see Lycoming SI 1070 issue L from 1995!

comment 112

comment by: *ver.di Vereinte Dienstleistungsgewerkschaft*

ETF-COMMENT AND POSITION PAPER ON THE EASA NOTICE OF PROPOSED AMENDMENT (NPA No 2008-15)

"Essential Requirements for Civil Aviation Environmental Protection"

ETF (European Transport Workers' Federation) generally welcomes the intention of the European Aviation Safety Agency (EASA) to expand its system in order to achieve the very best contribution to an overall environmental compatibility of civil aviation in Europe.

Within the scope of the extended competences of EASA onwards to the field of Air Traffic Management (ATM) and Air Navigational Services (ANS), the overall European Community approach to a profound environmental protection has to be taken in account permanently by **all** participants of the civil aviation sector.

ETF is sharing this view of aspect in a very determined manner but reminds all stakeholders that safety must be paramount at all times!

ATM and ANS are indeed forced to face the big challenge by thoroughly assessing all the various aspects under which their specified contributions towards a more and better environmental sustainability could be brought in, particularly by the avoidance of unnecessary affects to the ozone layer or by means of keeping off flights over sensitive ecological resorts or dense populated urban areas.

Hereby, ETF is offering excellent professional expertise as it could be delivered any time by the working staff representatives from all branches of ATM-business in Europe, performed in a way best to their knowledge.

As already done on many occasions during the recent past, ETF has repeatedly made it very clear that the impact of aviation, mainly caused by aircraft noise and aircraft emissions, has become a crucial issue to all of the members of our organisation.

Therefore, ETF strongly underlines the urgent need for a common proper regulation package to help address the challenges posed by climate change and aviation emissions as far as ATM and ANS are part of this important process of ongoing fundamental global changes.

ETF considers the attached essential requirements, as they are published by EASA, sufficient enough to meet all the criteria as they have already been defined by the framework of the NPA 2008-15-document so far.

Those essential requirements will certainly constitute a good basis for the regulation of aviation environmental protection within the envisaged scope of the EASA system.

ETF supports the Agency`s proposal to include environmental knowledge requirements in the theoretical training phase of certain personnel acting in the operational aviation system, just because such an initiative will increase the professionalism of the staff involved considerably.

Furthermore ETF considers the application of operating restrictions as a form of common rules within the framework of the EASA system only useful in cases where it could produce operational synergies, reduce regulatory burdens or when an unclear sharing of responsibilities could be avoided.

Being very conscious about the fact that ATM and ANS-functions and services play an important role in reducing noise and emissions as much as possible, ETF also underlines that the Air Transport Industry as a whole has to work out an environmental approach based on the various aspects of the issue (useless duplication of flights on same routings, fuel saving engines, flexible airport management, etc.). Furthermore, environmental friendly airspace design must remain at all time compatible with safe and decent working conditions for controllers.

Within the landscape of European civil aviation, ETF **together** with ATM and ANSorganisations, respectively the ANSPs involved, wants to develop a fruitful way of cooperation as soon as they will start to promote and enable the mitigation of the effects of noise and emission from aviation to the maximum extend possible, based on the

essential requirements and common regulations under the EASA system.

That is why ETF declares itself being ready for acting as a reliable but critical and nevertheless constructive social partner in the context of civil aviation environmental protection as well.

comment 140

comment by: *Nigel Hitchman*

I disagree with the NPA and think that it should be withdrawn. It seems to try to impose regulations applicable to commercial air transport to general aviation aircraft which is inappropriate. It is also trying to impose a "catch all" regulation irrespective of whether it is appropriate or not in different countries or areas.

Ultralight aircraft are adequately looked after with the current regulations and there is no need to impose any additional burdens, the only thing that needs to be done is to make the regulations simpler and make it easier to operate ultralights approved in one country in another without further testing/certification requirements.

The essential requirements appear to be overly burdensome and ill thought out, particularly in relation to regulation of other non aviation activities.

For example why should any regulation be imposed on aviation with respect to flying over quiet areas or over towns or at certain days of the week, such as weekends, when there arent similar laws governing other noise makers.

For example running of lawnmowers, allowing dogs to bark, riding of small motorcycles/mopeds, playing of music, ringing of church bells all are often noisier and have more noise impact than small aircraft and yet are not regulated. No regulation should be imposed on small aircraft until all of the above are regulated for their noise impact.

The ideas of regularly testing pilots for their knowledge of environmental impacts is also ridiculous. Just because pilots are regularly tested for some items of a flight safety nature doesnt mean that regular tests of other regulations can be imposed. It is particularly odd to try to test pilots for these things, when you see that doctors, lawyers, politicians etc and many other professions are never tested as to their competence.

This whole NPA seems ill conceived perhaps based on a small number of people's agendas serving no useful purpose in proportion to what is envisaged. It would be better to leave the situation as it is at the moment with no additional regulation.

comment 148

comment by: *British Gliding Association*

This response to NPA 2008-15 is made for and on behalf of the British Gliding Association, the representative body of sport gliding in the United Kingdom.

comment 149

comment by: *AOPA-Sweden*

Attachment [#1](#)

Here comments from AOPA-Sweden. See attachment. Fredrik Brandel

comment 163

comment by: KLM Engineering & Maintenance

KLM Comments on NPA 2008-15 (all Divisions)

Please find below the amassed comments of KLM Royal Dutch Airlines on EASA NPA 2008-15 "Essential Requirements for Civil Aviation Environmental Protection". First let us express that KLM strongly supports the protection of the environment. This is shown amongst others by our inclusion in the Dow-Jones sustainability World and STOXX indexes and KLM's ISO14001 certificate for an Environmental Management System.

The general comments below and the specific detailed comments on the NPA itself that you will find in the CRT represent the opinion of KLM Royal Dutch Airlines in its entirety.

General:

Despite our commitment to the environment, KLM has the following major concerns related to this NPA:

The involvement of EASA in environmental matters creates an additional regulator in this field and will lead to an overlap and/or duplication of existing national environmental regulations. We strongly feel that this would be ineffective.

If any EU environmental regulations for aviation are considered, introduction of such regulations should coincide with a similar limitation of the national regulations, just as EASA aviation safety regulations have superseded any national aviation safety regulation.

If equivalent national environmental regulations are not limited, KLM is of the opinion that essential requirements as mentioned in NPA2008-15 should be limited to Aircraft and Engine manufacturers/ -modifiers and/or Airspace designers. In this respect we would like to emphasize that a lot of NPA 2008-15 requirements are already covered by ICAO and/or (national) airport regulations and also covered in regulations necessary to obtain an AOC. Air operators already take these regulations into account during the flight preparation phase.

The term significant impact to the environment is not defined. Additionally it is not clear who is determining what's significant and what's not.

Clear and unambiguous limits or standards should be indicated, e.g. referring to the ICAO Annex 16 requirements. Guidance must be included. In the absence of clear and unambiguous limits or standards, variations in auditing will adversely impact the European level playing field.

More stringency applied to ICAO-levels (e.g. with tankering, emission / noise levels and training aspects) in a regional European context causes additional distortion of the global competitiveness.

Next to the question if an extra legislator will have additional value, this proposal will lead to a very big and possibly disproportional training effort.

And finally, KLM is of the opinion that a Risk Impact Assessment (RIA) is imperative. The RIA must address whether NPA 2008-15 is beneficial to the environment and highlight the overall economic impact.

comment 212

comment by: *jobeckers UECNA*Attachments [#2](#) [#3](#)

UECNA appreciates EASA's efforts to receive comments on the Notice of Proposed Amendment 2008-15 "Essential Requirements for Civil Aviation Environmental Protection" from non-government organizations.

The increase of emissions from air traffic, in particular the aircraft noise, negatively impacts an increased number of people. The expansion of airports, commissioning of new airports for civil aviation, extension of airport operating hours and the increased traffic negatively impact an increasing number of people. In recent years the exposure to aircraft noise has become an aggravating problem.

There is a significant lack of protection of people against the aircraft noise emissions, which require substantial improvements. Only one of the 4 elements of the "ICAO Balanced Approach" is effective to achieve reductions in emissions: Noise-related operating restrictions. The other elements do not provide sufficient leverage for improvements, or only become effective after a too long period of time. (See "Merkblatt BV010" of the Bundesvereinigung gegen Fluglärm, attached; see also www.fluglaerm.de and <http://www.fluglaerm.de/Dokumentation/BVF17-MB-BV010-EU-Aktionsplaene-und-FL-806.pdf>).

We believe that EASA shall define stringent standards for measures to limit /reduce the aircraft emissions, and to install comprehensive standards for inspections of these measures.

We strongly recommend the following measures:

- Define objectives with maximum permissible emissions (noise levels and volumes of exhaust gas).
- Define time scales for the implementation of these objectives for maximum permissible noise and exhaust gas levels
- Define procedures for an effective enforcement of these objectives
- Establish effective procedures, which allow an easy and efficient reporting of complaints, e.g. a complaint-website
- Define standards for initial and continuing training on environmentally friendly flight procedures and ground handling of aircraft. The standard shall also define the personnel, who must be trained.
- The consideration of noise exposure must include all sources of noise. Present plans for new airports and expansion of airports take into account the aircraft noise only.
- Measures for the reduction of aircraft noise emissions, which are required / requested by the aircraft noise commissions shall be controlled by EASA, or an independent national organisation (assessment body). This way measures for noise reduction can be monitored and, if necessary, be enforced.
- ATM/ANS must be controlled for compliance with standards and regulations to protect the environment. The continuous development of these standards and regulations to further reduce the noise emissions is imperative, and shall be controlled by EASA.

This comment has been coordinated with the Bundesvereinigung gegen Fluglärm e.V., German, the national association of communities and people groups against aircraft noise.

comment 238

comment by: UK CAA

STRATEGIC CONSULTATION

The UK CAA does not support a broad extension of EASA's remit in the way proposed in NPA 2008-15. The UK CAA supports the most efficient, cost effective and sustainable ways of mitigating aviation's effect on the environment. However before an NPA of this kind can be considered in detail, there is a need for a wider, strategic debate about how aviation environmental issues should be addressed in the Community, and the best ways of achieving the Community's environmental objectives in aviation. The first question of the NPA should be whether consultees support a comprehensive extension of EASA's scope into environmental policy formation and implementation. Within NPA 2008-15 there are a number of areas where we could support common environmental rules and we have highlighted these throughout our response. **But without this initial strategic debate the UK CAA does not support a broad extension of EASA's remit as proposed in NPA 2008-15.**

comment 239

comment by: UK CAA

THE LEGISLATORS' INTENTIONS

The UK CAA accepts that one of the original objectives of the legislators in creating the EASA system was to contribute to enhancing the environmental compatibility of civil aviation. But NPA 2008-15 states (paragraph 10, page 4) that the European Commission indicated that its original proposal was aimed at providing the European citizen with a high uniform level of safety and environmental protection, implying that these are equal objectives. The paragraph then suggests that the original proposal only proposed provisions necessary to ensure the airworthiness and environmental compatibility of products because further work was needed to properly address other areas of civil aviation under a total system approach. Paragraphs 11 to 14 of the NPA build on these assumptions, which then underpin all of Part A of the NPA 2008-15, culminating in the statement in paragraph 54 that "the impression" in Article 17 of the Basic Regulation "that safety was mainly driving its drafting while environmental protection only appeared as a second class objective...has to be corrected, as the intention of the legislator was that the Agency should also ensure the proper functioning and development of all areas of the aviation system that are within its competence, and not just the safety aspects".

The UK CAA queries these assumptions, and indeed whether the Agency can properly make such unequivocal statements about the intentions of the legislator. The issue of the "total system approach", which we believe has been misinterpreted, is dealt with separately below. But the key point is that Regulation 1592/2002 was very specific in setting out at Article 2.1 that the *principal* objective of the Regulation was "to establish and maintain a high uniform level of civil aviation safety in Europe". Article 2.2 then listed a number of "*additional* objectives" including environmental protection", and this has been maintained in Regulation 216/2008. Furthermore, the name given to the Agency clearly denotes the primacy of its safety objective. **The UK CAA does not consider that the Agency's safety and environmental objectives should be regarded as having equal status.**

comment 240

comment by: UK CAA

SAFETY VERSUS ENVIRONMENT

NPA 2008-15 does not address the important issue of possible conflicts between safety and environmental issues. While there may be synergies between safety and environment, there are also potential trade-offs, and it should not just be assumed that because there is a tool available (e.g. EASA certification) that this is the best way of achieving its aim. The NPA itself (paragraph 17) says that it is unlikely that the EASA system will be appropriate for all aspects of environmental protection. **The CAA considers that NPA 2008-15 should have made it clear that environmental aspirations must never compromise safety requirements and specifically identified all the potential safety implications of its proposals.**

comment 241

comment by: UK CAA

TOTAL SYSTEM APPROACH

The report of the High Level Group on the future European Aviation Regulatory Framework, published in July 2007, frequently referred to the term "total system approach". However, such references are in general linked to safety (for example Jacques Barrot's foreword that "EASA will be able to cover the entire aviation safety chain in a total system perspective"). They refer to regulating the safety of all domains of aviation in one organisation, not to combining safety with other objectives. Indeed, the report is at pains to stress the importance of separating responsibility for safety matters from responsibility for other objectives. In the body of the report there are separate chapters and recommendations on safety in which the extensions of EASA's scope are covered, alongside other chapters dealing with the delivery of environmental benefits in which SESAR and other initiatives are covered but no reference is made to EASA. **The UK CAA believes that the NPA misinterprets what is meant by a "total system approach".**

comment 242

comment by: UK CAA

COSTS AND BENEFITS

Environmental issues can be addressed either through market mechanisms (e.g. tax or emissions trading) or rules. Rules tend to be a second best solution but may be necessary where market mechanisms cannot work, examples may include the certification of new aircraft or engines or measures to ensure the consistent provision of information. An important distinction is between local and global externalities, e.g. noise and climate change emissions. Broadly, addressing local issues locally allows sensible trade-offs to be made, while global issues need to be co-ordinated at a supra-national level. This would point to EASA having a potential role in some areas, but not being involved in others such as setting noise rules around airports. **Following an initial strategic debate on how aviation environmental issues should be addressed in the Community and the potential role for EASA the UK CAA would expect to see a clear statement of the benefits of the proposals in NPA 2008-15, along with an indication of the potential costs and who should bear these costs.**

comment 243

comment by: UK CAA

TIMING AND COORDINATION WITH SES II PACKAGE

It is not clear how such a wide-ranging environmental role for EASA would fit with other aspects of the regulatory framework for aviation and the environment (i.e. SES II, SESAR, ICAO) and it seems inappropriate to publish an NPA on this subject when discussions are just commencing in the Aviation Working Group and the European Parliament on associated issues. For example the SES II package will introduce measures that will:

- Promote the environmental sustainability of aviation, seek to improve the environmental performance of ATM, and may set environmental targets.
- Oblige States to ensure that airspace design take account of environmental constraints.
- Specifically oblige States to ensure that Functional Airspace Blocks reduce the environmental impact of ATM procedures and designs.

Proposals for performance based essential requirements for environmental protection, if applied to ATM, could directly impact on the proposed performance framework for SES Package II. In addition to SES II, SESAR also has environmental aspirations. SESAR will be considering a number of specific environmental approaches such as Environmental Management Systems and Collaborative Environmental Management, together with a range of subjects for guidance and best practice. The SESAR ATM Master Plan has its own "Environmental Road map" and a performance framework for environmental sustainability. It is not clear how EASA's proposals will be coordinated with these.

Nor is it clear how the military interface with civil aviation might be managed on environmental issues. Some military operations might ultimately fall within the scope of the proposals in the NPA. Any opinion resulting from the NPA would need to exclude all military activity from its scope.

The UK CAA considers that there is potential for duplication, conflict and contradiction between the current environmental initiatives contained in the SES II proposals, SESAR and the NPA.

comment 244

comment by: UK CAA

NEW SET OF STAKEHOLDERS

The UK CAA fully supports all aspects of European aviation safety rulemaking being centralised in EASA, but these environmental proposals would confer on EASA very wide responsibilities in the separate area of environmental protection. This is an area with significant cultural and 'political' sensitivities, very different from aviation safety. The High Level group report "stresses that it is important that EASA performs its current functions effectively before being given new responsibilities". We are concerned that NPA 2008-15 makes no reference to whether the EASA system is likely to be able to cope effectively with the additional rule-making and standardisation functions that would be associated with such a wide-ranging extension into environmental matters, and the challenges of operating in an unfamiliar, politically sensitive climate.

The UK CAA is concerned about EASA's ability to take on new environmental responsibilities with a new set of stakeholders when the Agency is likely to only have very recently taken on responsibilities in the fields of ATM and aerodrome safety.

comment 245

comment by: UK CAA

SUMMARY

The UK CAA would welcome a strategic discussion at Community level on the best way of meeting Community environmental objectives in the field of aviation but does not consider that at this stage NPA 2008-15 provides the basis for such a debate. Whilst recognising that EASA has a role to play in ensuring the environmental compatibility of aviation, and that there may be some additions to this role which would be beneficial and justifiable, there should be no presumption of the kind made in the NPA that the EASA system should assume such a major role in meeting environmental objectives. The priority for EASA is to focus on its fundamental safety objectives, including the extensions of its scope into new domains either already agreed by Parliament and Council or currently under discussion.

comment 286

comment by: *Union française contre les nuisances des aéronefs***Nos demandes à l'EASA :**

- L'UFCNA demande à ce que l'agence européenne s'occupe à terme du problème des vols de nuit car l'exposition des populations est très inégale selon les pays. Il n'y a pas, à notre sens, d'argument suffisamment important, fût-il d'ordre économique, qui puisse prévaloir sur la santé publique.

Les règles visant à limiter les vols de nuit devraient à l'avenir être établies au niveau européen.

- En France, les Commissions de l'environnement, les organismes comme le Conseil national du bruit et l'Acnusa sont seulement consultatifs, leur rôle est limité et les résultats en matière d'environnement sont très décevants. En conséquence l'UFCNA demande à l'EASA un élargissement de ses compétences au niveau du traitement des nuisances sonores et chimiques générées par le trafic de l'aviation commerciale, l'aviation légère, celui des hélicoptères et des avions militaires, ce dernier sujet n'étant pas du tout traité en France.

Nous pensons que EASA pourrait à terme prendre des décisions importantes pour la vie de millions d'habitants comme par exemple :

- le remplacement des vols courts par le train à grande vitesse.
- l'organisation du fret sur des plates formes isolées comme par exemple celle de Vatry.
- un couvre feu sur les aéroports européens de 8 heures consécutives sans report des nuisances sur d'autres plates formes régionales.
- un plafonnement des mouvements car les aéroports ne sont pas extensibles à l'infini et on ne peut pas continuer à doubler le trafic tous les dix ans sans régulation à l'échelon européen. Des études d'impact doivent être rendues obligatoires.
- un calendrier pour le montage systématique de dispositifs réducteurs du bruit sur les avions légers en particulier ceux qui pratiquent les tours de piste. Site canalaero.org

Les 50 associations que nous représentons en France sont favorables de façon unanime à l'élargissement des compétences de l'EASA afin que les problèmes de nuisances des avions soient enfin pris en considération.

Translation by Centre de Traduction

Our requests to EASA:

- the UFCNA (French National Association Against Aircraft Noise and Pollution) requests that the European agency involves itself in the long term with the problem of night flights, since the exposure of the affected populations is very unequal depending on the countries concerned. In our view, a sufficiently strong argument for overriding public health does not exist, even if it were to be on economic grounds.

The rules intended to restrict night flights should in future be established at a European level.

- In France, the part played by the Commissions for the environment and organisations such as the Conseil national du bruit (National Council on Noise Pollution) and Acnusa (Authority for the Control of Airport Noise Pollution) is only consultative, their role is limited, and their results in matters relating to the environment are very disappointing. As a consequence of this, UFCNA requests EASA to broaden its activities at the level of dealing with the noise pollution and the chemical pollution generated by commercial air traffic, light aircraft, helicopters and military aircraft, the latter subject not being addressed at all in France.

We believe that EASA could eventually take important decisions affecting the life of millions of inhabitants, for example:

- the replacement of short-haul flights by high-speed trains;
- the organisation of freight on isolated platforms, such as that at Vatry.
- a curfew of 8 continuous hours at European airports without passing on pollution to other regional platforms;
- a ceiling on movements, because the airports are not capable of infinite extension and it is not possible to continue to double traffic every ten years without regulation on a European scale. Impact studies should be made obligatory;
- a calendar for the systematic implementation of arrangements for the reduction of noise from light aircraft, in particular those which carry out solo circuits. Website: canalaero.org

The 50 associations that we represent in France are unanimous in their support for the enlargement of the activities of EASA with a view to ensuring that problems of pollution caused by aircraft are finally taken into consideration.

comment 294

comment by: *Environmental Court Vänersborg Sweden*

Miljödomstolen avstyrker föreslagen utformning av EASA NPA 2008-15. Det föreslagna regelsystemet kan inte ersätta den prövning som görs enligt miljöbalken för den enskilda flygplatsen. Kraven är till stor del oprecisa och uttrycks som att olika störningar ska "minimeras så långt möjligt". Det är tveksamt vilken styrande effekt sådana bestämmelser kommer att få. Någon nytta kan förslaget eventuellt ha inom gemenskapen om det antas som ett minimidirektiv.

De förslag till driftsrestriktioner som anges under punkt 6 på sidan 26 i förslaget ska rimligtvis läggas fast som villkor för den enskilda flygplatsen av lämplig prövningsmyndighet. I nuvarande regelsystem har alla parter som är berörda av den aktuella flygplatsen möjligheter att lämna synpunkter på verksamheten och delta i den huvudförhandling som miljödomstolen håller och

framföra sina synpunkter på verksamheten. Domstolen har sedan att vid ett tillstånd i en dom ange vad som ska gälla för verksamheten utifrån vad som framförts av de olika parterna i målet och vad som framgår av gällande rätt inom de frågor som domstolen är behörig att pröva. De frågor som prövas av domstolen är exempelvis - förutom restriktioner nämnda i punkten 6 - även övriga miljöfrågor som hör samman med flygplatsanknuten verksamhet, exempelvis utsläpp av dagvatten, utsläpp till luft, energihushållning, avfallsfrågor, kemikaliefrågor, transporter såväl internt inom flygplatsen som transporter till och från flygplatsen.

Claes Kristensson Staffan Lagergren Staffan Ljung

Detta yttrande har beslutats av chefrådmannen Claes Kristensson, rådmännen Jonas Sandgren, Gunnar Bergelin, Stefan Nilsson och Göran Stenman, samt miljöråden Staffan Lagergren, Staffan Ljung och Joen Morales. Yttrandet har beretts av Lagergren och Ljung.

Translation by Centre de Traduction

The Environmental Court opposes the proposed structure of EASA NPA 2008-15. The proposed set of rules cannot replace the inspection performed under the Swedish Environmental Code for the individual airport. The requirements are in many respects imprecise and expressed in such a way that various instances of disruption must be "minimised as far as possible". It is doubtful what the controlling effect of such provisions will be. The proposal may have some value within the Community if it is adopted as a minimum directive.

The proposed operating restrictions specified under item 6 on page 26 of the proposal should logically be laid down as conditions for the individual airport by a suitable inspection authority. In the existing set of rules, all parties affected by the airport in question have opportunities to submit views on the operations and to take part in the main hearing held by the Environmental Court and to put forward their views on the operations. The Court must then specify, when granting a permit in a judgment, what is to apply for the operations on the basis of what has been put forward by the various parties in the case and what is defined in the relevant legislation relating to the issues that the Environmental Court is authorised to hear. The issues considered by the Court are, for example, in addition to the restrictions mentioned in item 6, also other environmental issues associated with an airport-related business, for example emissions of run-off water, emissions to air, energy conservation, issues relating to waste, issues relating to chemicals and transport operations, both internally within the airport and transport to and from the airport.

comment 344

comment by: *BMVBS, DE*

The NPA 2008-15 published on 30 May addresses very fundamental aspects of future European Aviation Environmental protection policy. In addition to aviation safety, environmental protection is one of the most important tasks of a harmonized European system. Therefore the German Ministry of Transport, Building and Urban Affairs (BMVBS) welcomes EASA embracing this domain.

Nonetheless, the NPA 2008-15 offers a rather broad view on the possible rulemaking activities and has only limited value as it stands, since it offers no clear idea of what exactly the scope of future rulemaking activities will be in the field of Essential Requirements for Civil Aviation Environmental Protection.

The BMVBS is of the opinion that a more focused approach in terms of asking

relevant policy questions would be of a much higher benefit to the European aviation sector. In this regard the BMVBS has encouraged EASA in July 2008 to re-issue the NPA on Essential Requirements for Civil Aviation Environmental Protection addressing the fundamental policy issues in a more precise and transparent way.

This would encompass detailed suggestions on:

- the possible development of European environmental certification procedures that would close the gaps of the Annex 16 provisions,
- the future role of e.g. EASA, NAAs, DOAs in stating compliance with the environmental certification requirements,
- the extent EASA should or should not be responsible for setting up common European operating restrictions

to name only a few important fields of activity.

Again, BMVBS welcomes EASA addressing this most important area and recognizes the merits of common European rules in the field of environmental protection in the civil aviation sector. In this spirit BMVBS appreciates a revision of NPA 2008-15 including precise rulemaking options and a clear vision of a tiered approach.

comment 379

comment by: *International Air Transport Association (IATA)*

INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA)

Response to the European Aviation Safety Agency (EASA)

NOTICE OF PROPOSED AMENDMENT (NPA) NO 2008-15

"Essential Requirements for Civil Aviation Environmental Protection"

INTRODUCTORY REMARKS

IATA is the association of the world's international airlines. It brings together approximately 230 airlines, including the world's largest. Flights by IATA member airlines comprise approximately 93 percent of all international scheduled air traffic.

IATA and its members fully appreciate the importance of environmental protection and welcome the opportunity to respond to this consultation. Aviation has a relatively small environmental impact but this is not an excuse for inaction. The air transport industry is committed to the continuous improvement of its environmental performance thereby building a sustainable future for aviation.

IATA generally supports efforts by governmental, intergovernmental and industry bodies to streamline and harmonise aviation regulations to the extent that such efforts help to shape the stable and predictable business environment that allows airlines to operate in the safest, most efficient and most sustainable way possible. In this regard, clarification would be useful as to what exactly the environmental objectives are that the EU and EASA are trying to achieve.

Because IATA represents the interests of both EU and non-EU airlines, one of our main concerns is with ensuring that regulations do not lead to discrimination, market distortions, international disputes or other unintended situations that would harm the sector financially or otherwise.

Having considered the consultation document very carefully, IATA believes that

EASA's proposals raise a number of issues that could have far-reaching and unwanted consequences for the industry. As explained in the comments put forward in this paper, the proposed Essential Requirements could result in a significant and disproportionate amount of regulatory burden for the industry in terms of additional costs and administration without demonstrable environmental benefits. Besides, various aspects of the proposed requirements impinge on the authority of national and international government bodies (including ICAO's) and are potentially in conflict with safety objectives.

In conclusion, IATA does not consider the proposed Essential Requirements a good basis for the regulation of aviation environmental protection.

comment

394

comment by: *General Aviation Awareness Council, UK*

This response to NPA 2008-15 is made for and on behalf of GAAC (GENERAL AVIATION AWARENESS COUNCIL).

As you may know, the GAAC represents some 70 UK Aviation Associations and individuals and has a unique remit in speaking with a consensus voice for policy matters related to Airfields. The major associations in our membership cover virtually all GA operations in the UK, and their representatives have seen and agreed with our response. In addition, some of them are submitting more detailed responses on aspects particular to their operations.

It is for this reason that we would ask for your particular consideration of our responses attached hereto.

In this context it is interesting to note that The General Aviation community has views that do not always coincide with those of commercial air transport but represents a far greater number of aircraft and using many times the number of licensed landing and take off places.

Light aviation consumes a very small percentage of the overall consumption of aviation fuel. Spread over the 800 or so active light aviation flying sites in UK, this cannot cause noticeable downgrading of air quality at or near any of them. Aviation noise and air quality effects primarily stem from large transport aircraft and it is not reasonable for EASA to produce a blanket damning statement on these matters covering all aspects of aviation. Our view is that any EU or EASA environmental regulations thought necessary should be applicable only to aircraft operations at major aerodromes. The need to get on with neighbours means that light aviation has to self-regulate within the constraints of existing local government planning restrictions and that is, in our view, sufficient.

Please do not hesitate to let us know if we may amplify or clarify any point or be of further assistance.

Yours sincerely,
C J Nicholas, Board member, GAAC
www.gaac.org.uk

comment

402

comment by: *DIRAP*

Objet : Amendement NPA 2008-15

Madame, Monsieur,

La DIRAP association créée en 1991 a comme objet la défense des intérêts des riverains contre les nuisances de l'aérodrome de Pontoise-Cormeilles en Vexin ainsi que celles induites par l'activité de Roissy Charles de Gaulle situé à moins de 40 km de Pontoise.

Le trafic de l'aérodrome de Pontoise-Cormeilles en Vexin est en majorité basé sur l'aviation légère avec environ 60 000 mouvements, en majorité activité de formation des pilotes en « tour de piste ».

Diverses avancées ont permis de réduire les nuisances sonores de l'aviation légère qui restent néanmoins à la limite du supportable.

Une Charte avec les usagers a été signée, des silencieux ont été installés sur certains appareils, un arrêté de restriction d'exploitation interdit les vols aux avions non équipés de silencieux les week-end et jours fériés entre 12h et 14h.

Mais les riverains se plaignent de plus en plus des nuisances de l'aéroport de Roissy.

La mise en place d'une nouvelle organisation des vols (réduction des hauteurs entre paliers) ainsi que l'augmentation du trafic de Roissy, a entraîné une recrudescence des nuisances. En particulier les vols de nuits sont fortement ressentis dans notre région située à plus de 40 km de Roissy dans un environnement calme.

La DGAC n'a pas montré jusqu'ici une forte implication pour traiter les problèmes de nuisances, notamment le bruit.

Concernant les nuisances de l'aviation légère, son action s'est limitée à accompagner les initiatives des associations locales (ex : dossier de subvention pose de silencieux) ou a formaliser une note à l'intention des Préfets incitant à prendre en compte les moyens permettant de réduire les nuisances dans le cadre de commissions dont la création n'est pas obligatoire ! Aucun rapprochement de la réglementation française des réglementations plus satisfaisantes (ex : Allemagne pour niveau de bruit des avions légers) n'a été envisagé !

Au contraire, la difficulté de « cohérence avec la réglementation européenne » est souvent opposée aux associations sans que celles-ci aient la possibilité de le vérifier.

L'ACNUSA n'a pas dans son champ d'action l'aviation légère, ou, et cela revient au même, les aérodromes de faible activité : par exemple, les mesures de bruit réalisées par ADP sur l'aérodrome de Pontoise/Cormeilles en Vexin ne sont pas mises à disposition de l'ACNUSA !

Pour ces raisons la DIRAP membre de l' UFCNA demande d'étendre les compétences de l' EASA :

1) Pour mettre en place une organisation des contrôles permettant de vérifier que les avions de moins de 2000kg satisfont aux exigences environnementales. Ces exigences devraient être définies dans un premier temps sur la base des meilleures pratiques déjà existantes dans les pays de la CE.

2) Pour que les restrictions d'activités soient régies par des règles communes afin d'éviter les reports de nuisance d'un aérodrome vers un autre. Notamment pour interdire des atterrissages et décollages de nuit par la mise en place d'un couvre feu de 8 heures consécutives de façon coordonnée au niveau européen.

3) Pour prendre en considération l'ensemble des nuisances au niveau de chaque aérodromes, notamment le cumul des nuisances locales et celles des aérodromes voisins (ex : Pontoise + Roissy).

4) Pour mettre en place en complément des indices actuels (Lden notamment) un indicateur de la nuisance prenant en compte le niveau sonore et le nombre de survols. Cet indicateur est plus représentatif de la nuisance

que l'indice pondérateur Lden en particulier dans le cas des aérodromes gérant une activité aviation légère.

Dans l'attente de votre réponse, veuillez agréer, Monsieur le Directeur, nos salutations distinguées.

Le Président de la DIRAP
Jean Marc BUTEUX

Translation by Centre de Traduction

Subject: Amendment NPA 2008-15

Madame, Monsieur,

The aim of DIRAP, an association created in 1991, is to defend the interests of local residents against pollution from the aerodrome at Pontoise-Cormeilles en Vexin, as well as pollution caused by the activity of Roissy Charles de Gaulle airport situated at a distance of less than 40 km from Pontoise.

The majority of the traffic at the aerodrome at Pontoise-Cormeilles en Vexin is based on light aviation with around 60,000 movements, most of which involve pilot training activities in the form of 'solo circuits'.

Various improvements have permitted a reduction in noise pollution from light aviation, although this remains at the limit of what is acceptable.

A charter has been signed with the users, silencers have been fitted to certain aircraft, and an operating restriction order prohibits flights in aircraft that are not equipped with silencers at weekends and on holidays between 12 a.m. and 2 p.m.

However, local residents are complaining increasingly about pollution from Roissy airport.

The introduction of a new flight organisation (reduction in heights between level flights) as well as an increase in the volume of traffic at Roissy, are accompanied by an upsurge in pollution. Night flights in particular are strongly resented in our region, which is situated more than 40 km from Roissy in a calm environment.

Until now, DGAC (Directorate General for Civil Aviation) has not shown a strong inclination to address problems of pollution, especially noise pollution.

As far as pollution caused by light aviation is concerned, its action has been limited to going along with the initiatives of the local associations (e.g.: the matter of grants for the fitment of silencers) or to formalising a note for the information of Prefects encouraging them to take account of the means enabling pollution to be reduced within the context of commissions whose creation is not obligatory. No reconciliation of French regulations with the more acceptable regulations (e.g. Germany for the noise level of light aircraft) is envisaged.

On the contrary, the alleged difficulty of achieving 'consistency with European regulations' is frequently placed in the way of associations, but without the latter having the ability to verify the situation.

Light aviation, or, which amounts to the same thing, aerodromes with a low level of activity, do not fall within the sphere of activity of ACNUSA: for example, the noise measurements carried out by ADP at the aerodrome at Pontoise/Cormeilles en Vexin have not been made available to ACNUSA.

For these reasons DIRAP, a member of UFCNA, requests an extension

to the activities of EASA:

1) In order to introduce the organisation of control procedures to permit verification that aircraft weighing less than 2,000 kg conform to the environmental requirements. These requirements should be defined initially on the basis of the best practice already existing in EC countries.

2) In order for the restrictions on activities to be governed by common rules to avoid reports of pollution by one airport compared with another. In particular, in order to prohibit landings and take-offs at night by the imposition of a curfew of 8 continuous hours in a manner that is coordinated at European level.

3) In order to take into consideration the entirety of the pollution at the level of each airport, in particular the sum of local pollution and that of neighbouring aerodromes (e.g. Pontoise + Roissy).

4) In order to introduce, in addition to the current indices (in particular the Lden day/evening/night noise index), an indicator of the pollution taking into account the noise level and the number of overflights. This indicator is more representative of the pollution than the weighted Lden index, in particular in the case of aerodromes that are involved in activities involving light aircraft.

In anticipation of your reply, I remain

Yours faithfully,

President of DIRAP
Jean Marc Buteux

comment 412

comment by: *EUROCONTROL*

Attachment [#4](#)

comment 414

comment by: *EUROCONTROL*

EUROCONTROL Response
to
EASA Notice of Proposed Amendments (NPA) No 2008-15
"Essential Requirements for Civil Aviation Environmental Protection"
- General Comments -

EUROCONTROL's mission is to harmonise and integrate air navigation services in Europe, aiming at the creation of a uniform air traffic management (ATM) system for civil and military users, in order to achieve the safe, secure, orderly, expeditious and economic flow of traffic throughout Europe, while minimising adverse environmental impact.

In presenting its response to this EASA consultation "Essential Requirements for Civil Aviation Environmental Protection", the EUROCONTROL Agency takes an impartial pan-European civil-military expert view. We recall that safety is paramount, the importance of civil-military coordination, the need to clarify roles and responsibilities as well as refer to some existing EUROCONTROL developments with a view to ensuring synergies/avoiding duplication of costs, for the benefit of the aviation community. This is further highlighted in the following general comments as well as in the proposed changes to the Essential Requirements, submitted for EASA's consideration.

1) "Safety First"

The EASA concept of "environmental compatibility" indicates a willingness to regulate on environmental protection everywhere EASA will regulate on safety. In the short term, there is an element of uncertainty in that the extension of EASA competences to the Safety of Aerodromes and ATM/ANS is still under discussion between the Commission and the European legislators (European Parliament and Council). Therefore "compatibility" could only be fully ensured once this legislative process is successfully completed.

Safety shall always come first and this together with the concept of "environmental compatibility" raises a number of points, as discussed below.

On the one hand, there are recognised synergies/economies of scale when integrating the common components of safety management and environment management systems. On the other hand, in EASA Opinion N°1/2008 (Para 18) "(...) the High Level Group recommendation 1 recalls this principle: "... and ensuring that safety regulatory activities are conducted independently from other forms of regulation."

It is not yet clear, from the NPA documentation provided, how the arbitration between safety and environmental risks and objectives will be ensured (as well as the related economic considerations). This will have to be clarified in due course.

2) Civil-military coordination

The military are outside the scope of the EASA regulation (Art. 1). Military aircraft, equipment, facilities and personnel are not subject to EASA's current and future provisions when engaged in military, customs, police, or similar services.

Nevertheless, requirements are mentioned in this NPA regarding airspace design/use and the mixed civil/military use of military aerodromes. In both cases the civil/military interaction is such that Essential Requirements for civil aviation environmental protection must be carefully considered and established in full consistency with the result of the co-decision/legislative process on the extension of EASA competences in the safety of ATM/ANS and aerodromes.

3) Legal certainty, regulatory consistency and roles and responsibilities

Adopting measures in addition to those provided for under Annex 16 of the Chicago Convention at EU level is legally possible. It was done with Annex 8. Extending EASA's tasks to environmental policy and risk management, in particular, (climate change, land use planning, etc.) would require a change to the legal basis of the EASA basic Regulation as recognised in the NPA.

There are many environmental objectives discussed at global, European and national level potentially impacting on aviation and ATM.

In Europe, the Commission (DG TREN and DG ENV in particular), the European Environmental Agency, ACARE, the Clean Sky JU, the SESAR JU and EUROCONTROL (and in the future the Performance Review Body) may all discuss/publish initiatives or decide on environmental targets and objectives for aviation or ATM. In addition, ANS-related environmental performance issues fall under the SES regulations. The "compatibility" of all these targets and objectives is not always fully clear for all stakeholders or indeed citizens.

With a view to promoting legal certainty and regulatory consistency in environmental/performance regulation of aviation (and ATM), EASA may wish to consult with the different players (including national/local authorities) so as to form views on roles and responsibilities. Without such clarification, certainty and consistency will be difficult, if not impossible, to achieve, and will impose additional, unnecessary costs on the European aviation system.

4) Ensuring synergies and avoiding duplication EASA/EUROCONTROL

There are two identified areas that have potential synergies with EUROCONTROL's current and planned activities.

Aviation/ATM environmental awareness training

Synergies should be sought on awareness training activities. EUROCONTROL, as part of its public service duties, is providing (free) environmental awareness training to ECAC aviation and ATM personnel. This could be adapted to help Member States comply with the proposed Essential Requirements. EUROCONTROL also provides free environmental awareness material on its website (in the form of e-learning).

Data/Indicators, methods, models and tools for (environmental) impact assessment:

In particular in the domain of environment-related aviation/ATM, EUROCONTROL actively supports Member States, the European Union Institutions[1] (including the Commission DG TREN, DG ENV and EASA), ECAC (in particular through the ANCAT[2]) and ICAO (in particular through the CAEP process[3]) with its pan-European aviation/ATM data. We have a long lasting experience in developing recognised indicators, assessment and validation methods, models and tools, to ensure European continuity and impartiality, thereby contributing to better informed decision-making.

EUROCONTROL remains prepared to support States and stakeholders' requirements for comparable/consistent assessment framework, common approaches and methodologies for impact assessment and validation. In particular within the context of the Single European Sky, Functional Airspace Blocks and SESAR, consistency of approach is vital to identifying with confidence what environmental benefits ATM can deliver.

[1] In particular: "VEIRT" and "STAPES" models co-financed by DGTREN for Impact Assessments

[2] Group of Experts on the **A**batment of **N**uisances **C**aused by **A**ir **T**ransport

[3] **C**ommittee on **A**viation **E**nvironmental **P**rotection

comment 441

comment by: *Dassault Aviation*

Attachment [#5](#)

Please, find in attachment Dassault Aviation comments, sent by letter N° 575125 to EASA Rulemaking Directorate.

Best Regards.

Basic commnets

World aeronautics must refer to common standards without distortion that could lead to prejudice competitiveness. For Safety matters, standards are elaborated in international concert (FAA/EASA); for environmental matters ICAO is the only international structure for aeronautical rules. An active implication of all stakeholders, either States, industries or users, allows ICAO to obtain arrangements which are internationally accepted and valid for all vehicles. It is no use to invent a more restrictive European rule system that could pervert a fair competition. About environmental subjects, EASA should only enforce the international rules and not create new ones. Nevertheless, EASA action in order to homogenize application of ICAO rules by the European States would be profitable. Either Basic Regulation or Implementing Rules has to contain safeguards against unrealistic requirement beyond OACI annex 16.

Safety must remain the primary objective of aircraft conception. This design is the result of multi-criteria trade-off and optimizations where environment protection is taken into account with cost / safety / operations compromise. Current wording of the NPA would seem to change the order of priority, which we assume is not the intent. Nevertheless, it appears that an overseeing by a single body as EASA of both safety and environmental rulemaking would be an advantage to avoid conflicts.

A certification rule must not impose or forbid technical solutions. Such suggestion or orbidding of technological solutions has to be removed from the "Essential Requirements".

In order to manage the environment rules, from ICAO endorsed by the agency, EASA should use existing safety DOA privileges. There is no necessity to create another parallel system.

About "operations" and associated required skills, it is necessary to keep rules practicable with acceptable cost by light operation structures or individual operators (business jets).

The consequences of a non-compliant environmental item are less important than the safety ones, so all the processes of demonstration and verification do not need to be copied from safety to environment and must be lighter.

The life of an aircraft is over 30 years and many modifications can be incorporated to that product in order to improve it. EASA should take extreme care while defining new rules and associated means of compliance, in order not to limit product improvements due to cost prohibitive substantiation.

More generally, a study of economical impact has to be done for each environmental rule draft.

At last, there may be some doubts about EASA actual capacity to find financial and human resources to implement and survey such wide ranging rules.

Detailed comments

You will find in attachment some detailed comments by paragraph of the EASA draft with, in final, some proposed modifications to the NPA Part A/ section IV and Part B I & II Essential Requirements texts.

Conclusion

Considering environmental protection is an acceptable objective, but could not prevail over all other criteria for aeronautical activities design.

EASA has to contribute to a beneficial unification in member States rules.

It is necessary to introduce some limitations in the Basic Regulation text to ensure that the international ICAO recommendations would not be superseded by too severe conditions.

Local constraints could lead to local more stringent requirements, but these must not be taken in account to draft the common rules.

We ask for a complete revision of the draft, inside a working group where all

stakeholders would be represented.

comment 448

comment by: *Aerospace Industries Association*

AIA agrees in principle that any environmental requirements imposed upon civil aviation, to the extent that such requirements are properly within the scope of the EU's regulatory jurisdiction, should be administered within the comprehensive framework of Regulation (EC) 216/2008 (the "Basic Regulation") from which the EASA derives its primary authority. We also agree in principle that EU oversight of safety and environmental aspects of civil aviation within the EU should be vested in the EASA, in light of that Agency's expertise in the aviation field and its emphasis on international cooperation.

The draft aviation environmental protection essential requirements, and any other environmental requirements to be imposed upon aviation within the EU, must be designed and implemented in a manner that will not pose a risk to flight safety. Furthermore, any such environmental requirement must be necessary and appropriate in its object and scope, proportionate in response to the specific environmental issue that it addresses, and in harmony with both EU and international law, including the International Convention on Civil Aviation (the Chicago Convention). In particular, any such environmental requirement must be fully consistent with, and should not exceed the scope of, standards established by the International Civil Aviation Organization (ICAO). In addition, it should be made clear that with respect to those products for which international cooperation has led to the development and acceptance of ICAO noise and emissions certification standards, demonstration of compliance with the established limits of such standards satisfies the essential requirements of the EASA environmental protection regulations with respect to product design and manufacture.

comment 469

comment by: *Fridrich Jan*

I am microlight pilot with relevant aviation background.

I strongly believe that the grown regional differences in Europe are much better handled and more effective for the protection of the environment when they are tailored by the regional level based on expert knowledge of the situation.

I believe that the environment must not be split in different responsibilities but must be under the responsibility of one body. That is why a European Environmental Agency was established in 1990.

I would also like to point out that majority of sports and recreational activities are in fact environment friendly especially "ultralights" compared to the traditional GA and commercial transport ones.

comment 470

comment by: *Air Transport Association of America, Inc. (ATA)*

Attachment [#6](#)

Attached is a complete copy of the ATA comments. We have pasted portions of them in relevant sections.

comment 488

comment by: *Air Transport Association of America, Inc. (ATA)*

The Air Transport Association of America, Inc. (ATA) appreciates the opportunity to comment on the Notice of Proposed Amendment (NPA) relating to a potentially expanded environmental mission of the European Aviation Safety Agency (EASA). ATA is the largest airline trade association in the United States, representing the country's principal U.S. passenger and cargo air carriers[1]. The association's fundamental purpose is to foster a business and regulatory environment that ensures safe and secure air transportation and permits U.S. airlines to flourish, stimulating economic growth locally, nationally and internationally.

ATA and its member airlines recognize the importance of environmental protection. In the United States, ATA works with carriers on the vast array of environmental issues, including matters relating to climate change, local air quality, aircraft noise and water quality. Internationally, ATA and its members are active participants in ICAO's Committee on Aviation Environmental Protection (CAEP), working through the airline industry's official ICAO Observer organization, the International Air Transport Association (IATA).

Before turning to the specific questions in the consultation and the descriptions of the Draft Essential Requirements, ATA urges EASA to clearly articulate and embrace several fundamental principles that should apply in this (or any other) examination of ways to better integrate its statutory responsibilities across the European Union. We make this recommendation because several of the specific proposals in the Draft Essential Requirements suggest uncertainty as to EASA's mission, priorities and relationship to other regulatory bodies.

- EASA should make clear that safety is always the agency's primary objective. Though environmental protection is extremely important, it must never be pursued at the expense of air safety. The U.S. Federal Aviation Administration (FAA) observes this fundamental principle, stating its ambitious objectives for environmental improvement within the overriding context of safety. See, e.g., Report to Congress on Aviation and the Environment, 2004 at 1:7 ("... priority should be given to developing and implementing operational procedures for both noise and emissions reduction that satisfy safety requirements.")
- EASA should recognize and not attempt to encroach upon the environmental role of ICAO. ICAO has been effective in marshaling the expertise of the Members and Observers in CAEP to develop international consensus on the technological, environmental and economic reasonableness of engine standards for noise and emissions from aircraft engines. ICAO Member States have been able to adopt ICAO standards into national law with confidence that they have been thoroughly considered in ICAO, resulting in global harmonization across an inherently global market for engines and aircraft. ICAO experts also develop recommended practices and guidance on a wide range of operational and regulatory matters, which provide a common set of principles for States' implementation in accordance with their individual circumstances. In the safety field, by contrast, ICAO plays a less comprehensive role, and national safety authorities often confer outside ICAO to achieve harmonized approaches.
- EASA must recognize its regulatory authority is limited by the Chicago Convention. Under Article 1 of the Convention, which ensures States' sovereignty over their own airspace, EASA may not regulate operational decisions, routing requirements and similar measures in a State's airspace without its consent. Even if the 27 EU States grant EASA that centralized authority for wholly intra-EU flights, EASA may not exercise that authority for a flight while it is in the airspace of any other, non-

consenting State. Under Article 12, ICAO has jurisdiction over the high seas, and ICAO guidance is the appropriate vehicle to address such issues. Both of these provisions would preclude any EASA initiative to regulate the flights of ATA air carriers from North America to and from EU destinations.

- Any proposed regulatory measure must be described in terms precise enough to provide understandable guidance, and must be evaluated with full participation of all stakeholders to determine whether regulation is appropriate and, if so, how to achieve the least burdensome, most cost-effective approach. The NPA addresses a panoply of environmental issues, any of which would require a separate consultation for effective consideration of all relevant factors. Many of those issues, such as those related to local air quality, are within the legal purview of State authorities. In considering any of these issues, EASA should avoid any approach that would lead to overlapping and potentially conflicting regulatory structures, which would unnecessarily increase complexity and compliance burdens without affording greater environmental protections. As discussed below, most of the regulatory suggestions proffered in the NPA are so vague as to be incomprehensible and unenforceable.

[1] The members of ATA are: ABX Air, Inc.; AirTran Airways; Alaska Airlines, Inc.; American Airlines, Inc.; ASTAR Air Cargo, Inc.; Atlas Air, Inc.; Continental Airlines, Inc.; Delta Air Lines, Inc.; Evergreen International Airlines, Inc.; Federal Express Corporation.; Hawaiian Airlines; JetBlue Airways Corp.; Midwest Airlines; Northwest Airlines, Inc.; Southwest Airlines Co.; United Airlines, Inc.; UPS Airlines; and US Airways, Inc. Associate members are: Air Canada; Air Jamaica; and Mexicana.

comment 527

comment by: *Light Aircraft Association*

General

This NPA attempts to cover environmental issues in all matters appertaining to flying machines including the planning of the area surrounding any area intended for use by flying machines. In reality this is so extreme as to be impractical as flying machines can operate from any surface including land, water, ice, mud, sand, etc. In the UK the CAA and the Air Navigation Order define an "Aerodrome" as:-

Any area of land or water designed, equipped, set apart or commonly used for affording facilities for the landing and departure of aircraft and includes any area or space, whether on the ground, on the roof of a building or elsewhere, which is designed, equipped or set apart for affording facilities for the landing and departure of aircraft capable of descending or climbing vertically.

In the UK it is perfectly feasible to operate on a limited basis flying machines from farmland and parkland. Glider operations can and do require the ability to land other than at the "aerodrome" of departure due to atmospheric conditions. Balloons operate to and from fields, requiring no infrastructure or planning. Model aircraft of all sizes can and do operate from gardens to aerodromes with all surfaces in between, including water.

The NPA appears to be trying to encompass all flying operations from all surfaces whilst actually describing major airports, the two are totally incompatible and impossible to write a single ruling to cover all!

Regarding the flying machines themselves, the majority of the NPA is centred on commercial operations but then, for no apparent reason in Question 1,

identifies commercially manufactured ultralights as something very different from all other flying machines! This is unfair and defies any logical reasoning.

Under the heading of Essential Requirements, suggesting that "Aviation products must be as quiet as possible" is patently absurd. If one company produced a product that was thought of as being extremely quiet but then another managed to reduce the sound level, would the first be fined for not achieving the "as quiet as possible" dictate? If so, this would effectively ground every flying machine apart from the special Lockheed YO-3A developed for Vietnam in the 1960's!

Within the same section under aerodromes, suggesting that "an aerodrome and its aviation activities may not constitute or create any particular unacceptable risk, or damage to, the environment" is equally impractical. Even the animals and the human beings on the aerodrome produce unacceptable risks to the environment!

Again in the same section under "environmental awareness of persons active in the aviation system" it is suggested that everyone from the cleaners to the pilots needs training in noise propagation, emissions and to be a doctor to determine the effects of emissions on humans entering the area. Further they need to be lawfully responsible for knowing all these environmental aspects apart from the full knowledge of their jobs; we suggest these would need to be university graduates of a very special calibre!

- The extent of the impact on GA depends a large amount on the guidance/interpretive material that will need to accompany these proposed rule changes. The degree to which they apply will have a large effect (e.g. the depth of training that individuals will require). Also the definition/interpretation of terms such as 'minimise noise emissions' without a measurable limit (e.g. a dBA level) will be very hard to assess and standardise across the Community and will be open to subjective assessments and persuasive arguments by designers with a variety of assessing bodies (Qualified Entities for ELA aircraft, as well as EASA). This is likely to lead to a distinctly bumpy playing field!

Summary

Whilst attempting to reduce harmful emissions, reduce the impact of human activity on fellow humans and the environment may be an ideal, trying to achieve this by legislation rather than incentives is not going to work today or in the future.

Any attempts to reverse engineer to historic aircraft are potentially impractical and could destroy the reason these machines are of historic value.

Attempting to change the established planning laws of any nation to just cover aerodromes and their surroundings must be beyond the remit of EASA.

comment 567

comment by: ADV

ADV is the German Airports Association. It brings together more than 50 airports in Germany, Austria and Switzerland including the largest.

In particular the proposed Essential Requirements (ER) for environmental protection could result in significant costs & bureaucracy for questionable environmental benefits. We are concerned that various aspects of the proposed ER could conflict with safety objectives. We therefore urge EASA to seriously reconsider this proposal in particular the proposed Essential Requirements.

Moreover, introduction of any supra-national regulation should only occur with

a simultaneous renunciation of relevant national regulations. This has for example happened with EASA safety regulations, which have superseded national safety regulations. Unless there is a guarantee that new EASA rules would replace existing rules and simplify processes and procedures, there seems no justifiable reason to extend EASA's mandate. The bottom line is that we need better regulation, not more regulation.

One area where EASA would be of benefit is in promoting the adoption of better airspace management within Europe, with the significant environmental benefits that have already been identified would result.

We would also seek clarification on the interface and relationships between EASA, the EU Commissions and Eurocontrol. EASA could be a substantial benefit in the area of environmental protection if it were able to rationalise the significant range of regulations issued by the various regulating bodies. We would, however, need guarantees that any subsequent EASA rules would replace those existing and hence a simplification of the whole system would result. If this is not forthcoming, then the prospect of overlapping potentially contradictory legislation with associated additional costs and more bureaucratic processes, is not something that we feel we could support.

comment

569

comment by: *The Norwegian Ministry of Transport and Communications*

On general terms, The Norwegian Ministry of Transport and Communications welcomes the initiative to integrate environmental considerations into European civil aviation legislation. We believe that there are in many cases no conflict of interests between safety, efficiency and environment. In such cases, integration of environmental considerations may ensure optimization of procedures regarding operation of aerodromes, air traffic management and air operations.

The objective of such regulations should be to reduce the negative impact on the environment caused by aviation. An important condition for achieving this objective is that standards set on a European level do not prevent member states from improving their own environmental performance beyond these standards.

With reference to the principle of subsidiarity, it is of vital importance that such regulations take into account the need for national and local authorities to adapt and/or apply regulations according to the relative weight of the problems at the various locations. As a general principle, the regulations should be enforced by national authorities.

Integration of environmental considerations into the civil aviation legislation at the European level must not interfere with other legislations regulating emissions and noise caused by aviation. Furthermore, this kind of regulation must not interfere with established regulations to enforce land use planning procedures where environmental considerations related to aviation is solved at a horizontal level. However, we believe that European legislation potentially may support such procedures by means of providing e.g. data and cost-efficient measures.

The establishment of EASA as a European aviation authority is a rather recent event. The primary task of EASA is to ensure a safe aviation, and the already proposed extensions of the Basic Regulation have not yet been fully

implemented. Although the Norwegian Ministry of Transport and Communications supports the initiative to integrate environmental considerations on a general basis, a condition for the Norwegian support is that the progress of this work does not have a negative impact on the work with safety regulation.

comment 662

comment by: BALPA

Generally, an ill thought out NPA that satisfies politician's requirements. We cannot see how to rewrite this document to make it workable. It tries to regulate, but allows Member States to modify according to local requirements ensuring a non-level playing field.

This document increases the responsibility of the pilot in command to operate in an environmental way but then stipulates conditions where he is unable to do so. In the UK we are all acutely commercially "aware" and thus "environmentally" aware because to operate inappropriately affects company profits.

EASA's remit is safety; it should not get involved with the environment to this level.

comment 681

comment by: *The Swedish Environmental Protection Agency*

The comments of the Swedish Environmental Protection Agency have been sent by email, as the files are not available in any of the allowed file formats. The views expressed in the documents are the following:

Summary

SEPA considers that an investigation should be conducted into whether it is necessary to establish environmental requirements for airports and air operations at a Community level.

If such rules are required, SEPA considers that Article 175.1 of the EC Treaty is the proper legal basis. SEPA opposes basing the rules on Article 80.2, since it could prevent Member States from imposing the additional requirements needed to protect public health and the environment.

EASA does not discuss the issue of how the Agency's new powers could be exercised in a way that is compatible with the rights of individuals under EC legislation and international conventions. Any regulation of environmental requirements for airports and air operations must enable individuals to exercise their rights.

The environmental requirements listed in EASA's proposal are of a very general nature and do not ensure an acceptable level of protection. On the part of Sweden, they could entail a considerable reduction in the protection of public health and the environment.

The wording of the proposal

In the opinion of SEPA, it is difficult to discern from the document which amendments to Regulation 216/2008 EASA considers to be necessary. There would have been greater opportunity to submit relevant views if EASA had submitted draft legislation or had substantiated the proposals in some other way. For example, it is not clear which decision-making procedure is to be

applied, nor how the system with common environmental requirements for airports and air operations is generally intended to function. The views of SEPA should be considered against this background.

The need for regulation at a Community level

According to the 'principle of subsidiarity', decisions regarding action at a Community level should only be made if the objective of the action cannot be achieved by the Member States and can therefore be better achieved by Community action (Article 5 of the EC Treaty). The Community should only legislate if this is necessary.^[1] The material that EASA provided for consultation does not contain any detailed deliberations concerning the application of the principle of subsidiarity. In light of this, SEPA considers that an investigation should be conducted to determine whether it is necessary to establish environmental requirements for airports and air operations at a Community level.

Legal basis

Legislative instruments that impose health and environmental requirements on site-related operations must be decided under Article 175.1 of the EC Treaty. This means that the Member States can impose requirements for more stringent protective measures (Article 176 of the EC Treaty). This could be said to be an expression of the principle of subsidiarity; in some cases, it is necessary to establish minimum requirements for site-related operations at a Community level, whereas requirements beyond this require knowledge of local conditions and should consequently be an issue for the individual Member States.

Article 80.2 is the legal basis for Regulation 216/2008; that is, rules for aviation. EASA's proposal seems to imply that EASA is the agency to decide on the environmental requirements for individual airports and the operations conducted there.

EASA's reasons for the proposals show that the intention is that the Member States are not to make decisions on issues encompassed by EASA's decision-making powers. The issue of whether the Member States or their public authorities should have any participation at all in the decision-making process is not mentioned. Thus, the proposal represents a deviation from the environmental regulation in EC law in relation to site-related operations. As regards a legal basis, SEPA wishes to emphasise that there is a big difference between the regulations concerning environmental requirements that are closely linked to free movement, such as the environmental requirements imposed on aircraft, and on site-related operations.

According to the case-law of the European Court of Justice, the legal basis for a legislative instrument should be established on the basis of objective criteria which may be subject to judicial review. These criteria include, among other things, the purpose and content of the legislative instrument.^[2]

SEPA believes that the aim of introducing environmental regulations for airports and the content of such provisions would differ markedly from the purpose and content of the current Regulation (Regulation 216/2008). Although the environmental requirements for aircraft in this context may be viewed as a secondary aim in relation to the purpose of regulating aviation, SEPA is of the view that the protection of the environment is the primary aim of imposing environmental requirements on airports.^[3] For this reason, environmental requirements for airports should be regulated by a special

legislative instrument, or alternatively that Regulation 216/2008 should be granted a dual legal basis.

SEPA has concluded that an application of the case-law of the European Court of Justice as regards a legal basis for Community legislative instruments would mean that Article 175.1 would be the proper legal basis for provisions concerning environmental requirements for airports and air operations. SEPA opposes such requirements being based on Article 80.2, since it could prevent Member States from imposing the additional requirements needed to protect public health and the environment.

The rights of individuals

It is a fundamental legal principle that the public and other affected parties are entitled to participate in the decision-making processes for operations that may have an impact on health and the environment. This principle is, for example, expressed in the Aarhus Convention and the Espoo Convention, which have both been implemented in EC law. According to the Aarhus Convention, the general public is entitled to have access to information, entitled to participate in decision-making and entitled to obtain access to justice. The Espoo Convention imposes requirements on environmental impact assessments for projects with a transboundary impact. One important purpose of the environmental impact assessments is to give the public the opportunity to submit views and influence projects. Major airports are among the projects covered by the Espoo Convention.

The Espoo Convention and Aarhus Convention have, among other things, been implemented in Directive 85/337/EEC (the EIA Directive), which imposes requirements for environmental impact assessments on, for instance, airports, regardless of whether they have a transboundary impact or not. There is also an EC Directive to safeguard the public's right to environmental information: 2003/4/EC.

According to the case-law of the European Court of Human Rights, noise from airports is an issue that affects everyone's right to respect for their private and family life and their home in accordance with Article 8 of the European Convention for the Protection of Human Rights and Fundamental Freedoms.^[4] According to Article 13 of the Convention, everyone whose rights have been violated under this Convention shall have access to an effective remedy before a national authority.

EASA does not discuss the issue of how the Agency's new powers could be exercised in a way that is compatible with the rights of individuals under the above-mentioned EC legislative instruments and international conventions. Regulations in this area must enable individuals to safeguard their rights. For example, SEPA considers that individuals living near a planned or existing airport must be entitled to participate in the decision-making process for flight paths to and from the airport.

Level of protection

In Sweden, work has been underway over the past 40 years to impose environmental requirements on airports in connection with environmental permit proceedings. A practice has emerged involving the consideration of permits for airport operations while taking into account the impact of an operation on the environment and public health and, when necessary, regulating areas in the form of conditions. For example, the following matters may be mentioned and regulated within the framework of the consideration of

a permit:

- maximum number of air-traffic movements
- entry and exit paths within a certain radius of the airport and up to a certain altitude for aircraft, and the number of air-traffic movements on each flight path
- flight procedures
- navigation systems
- maximum number of visual approaches
- noise-protection measures
- collection of de-icing chemicals
- use of chemicals to combat snow and ice
- use, handling and storage of chemical products
- collection and purification of waste and run-off water
- collection of polluted snow
- emissions from fire drill sites
- air emissions from aircraft, including taxiing and holding
- air emissions from work and service vehicles
- air emissions from land transport to and from the airport
- emissions of volatile organic compounds (VOC)
- nuisance caused by smells in the vicinity of the airport
- the airport's energy supply
- monitoring programme that enables an assessment of whether conditions are being complied with
- information function for environmental issues at the airport

The purpose of environmental permit proceedings is to examine the issue of the protective measures, restrictions and other precautions that, according to national environmental legislation, should reasonably be imposed on an operator in order to prevent or rectify the nuisance caused by the operation conducted at the airport and in its vicinity. When conducting environmental permit proceedings, various assessments are made with the intention of mitigating the impact of the operation as far as possible and in order to achieve, from all perspectives, an appropriate balance between the diverse interests which may be affected by such proceedings. The relevant authorities are afforded the opportunity of participating in the process, as this is necessary for achieving the purpose of the proceedings.

The environmental requirements listed in EASA's proposal are of a very general nature and do not ensure an acceptable level of protection. Consequently, it may be questioned whether the proposal contributes to the objective contained in Article 2 of the EC Treaty, which stipulates that the Community must achieve a high level of environmental protection. On the part of Sweden, regulation according to this proposal could entail a considerable reduction in the protection of public health and the environment.

[1] See Protocol annexed to the Treaty of Amsterdam on the application of the principles of subsidiarity and proportionality. Among other things, this Protocol contains guidelines for applying the principle of subsidiarity.

[2] See, for example, judgment in Case C-300/89, *Commission v Council* and in Case C-269/97, *Commission v Council*

[3] Cf. judgment of the European Court of Justice in Case C-336/00, *Republik Österreich v Huber*

[4] Judgment of 2 October 2001 in the Case *Hatton and Others v the United Kingdom*

comment 682

comment by: *AgustaWestland*

We broadly accept that the EASA role be expanded to cover matters of environmental safety but we remain concerned that the development of regulatory matter must not ignore technical and commercial viability.

1) Rotorcraft noise regulations have been developed through a collaborative arrangement between ICAO, National Authorities and the rotorcraft Industry. We believe that this arrangement has served the Regulator, Industry, and the general public well in that noise regulations have been established that combine feasibility with economic viability yet have also clearly resulted in significant real life benefits to the environment. The European rotorcraft Industry fully accepts that the environmental impact of our products and services must be a matter of continued appropriate regulation but we would anticipate that the model established by ICAO with regard to collaboration between the Regulator and the Industry would be maintained as the role of EASA is expanded to cover such matters. We strongly believe that such a collaborative relationship is key to the timely creation and introduction of viable regulatory material that will control the environmental impact of our industry.

2) We would wish to point out that the fixed wing community has been in the position where technology that has been developed to drive the operating costs down have fortuitously also had the effect of reducing noise and emissions. This has allowed a very significant reduction in noise to be realised in recent times and thence captured by noise regulations. This situation is simply not available to the rotorcraft industry: there are no known technological revolutions that are also economically viable which could achieve the same gross impact to the noise generated from the edge-wise rotor configuration. Not with standing this situation our Industry continues to achieve realistic and measurable improvements in noise levels which have been reflected in the development by ICAO of appropriate regulation. Any further development of noise and emission regulation to be lead by ICAO or EASA must recognise that technological opportunities to achieve significant reductions in noise and emissions are unlikely to be available in the near future.

We also understand that there is no clear and unambiguous linkage between helicopter noise levels and a public perception of unacceptable noise pollution or nuisance effects as generated by helicopter operations. On this basis the setting of more stringent targets than might be linked to the current ICAO arrangements and guidance cannot be assumed to lead to a change in public acceptance of helicopter generated noise.

The cost to develop helicopters significantly quieter than the best of the current generation is unlikely to be recovered by increased sales, especially if lower noise involves higher first and/or operating cost.

comment 711

comment by: *Department for Transport*

This consultation response is the considered view of the Her Majesty's Government following consultation with UK stakeholders.

The UK Government sees safety as the overriding responsibility of EASA. We have concerns about delegating any extra responsibility to EASA. at present and we need to be assured that the efficacy of safety work is not compromised by overstretching the institution. Excessive and hasty expansion of EASA's role to protect the environment could be detrimental to the high standards of aviation safety expected by the United Kingdom and therefore we

do not agree to it.

The UK already has systems in place which set out high performance standards on the environment and it is unclear what, if any, benefits there might be for aviators and industry in the United Kingdom, if this was delegated to EASA .

We consider that in the future there may be a role for EASA in some areas to help achieve a total systems approach integrating safety and the environment mainly through the issue of guidance and best practice.

Her Majesty's Government would have offered its support if EASA's NPA had proposed to develop, publish and disseminate best practice guidance to help airport and airline operators conduct their business in ways that reduced their environmental impacts. Operators would be able to select and implement bespoke solutions that best targeted their environmental impacts and the opportunities of their business. Because the suitability of businesses and local geography varies we do not believe that harmonisation of solutions through the EASA basic regulation is appropriate for airport operations.

The Department for Transport has had great success producing similar guidance to operators of heavy goods vehicles. An independent impact assessment of the programme conducted in 2007 found that a reduction of 240 000 tonnes of CO2 and £83 million in savings was achieved by the 9% of the freight industry by using the Freight Best Practice Programme over the previous two years.

The UK proposes alternative wording:

EASA will undertake research to identify issues where some operators business practice could be developed and widely disseminated to reduce their environmental impact. EASA will consider currently identified issues such as:

- aircraft operations on the ground
- aircraft towing
- single engine taxiing
- positioning of de-icing stations
- routing to reduce taxiing
- on site renewable energy generation
- low impact ground support vehicles
- ground power offered and encouragement of its use
- conditioned air and encouragement of its use
- waste and recycling from aircraft
- how to minimise the weight of unnecessary equipment and supplies
- consumer information to encourage reduced luggage for reduced emissions.

comment 742

comment by: FAA

The United States Federal Aviation Administration (FAA) offers the following comments in response to the Notice of Proposed Amendment (NPA) 2008-15 regarding Essential Requirements for Civil Aviation Environmental Protection.

General

The NPA proposes consideration of a "total system approach" to achieving a "high uniform level of environmental protection," using "synergies" with the safety regulatory system already in place. From a conceptual point of view,

this appears reasonable. Nonetheless, the texts of the NPA Explanatory Note and the Draft Essential Requirements raise a number of questions and concerns that should be considered in greater depth and further consultation with stakeholders before EASA moves forward with this initiative. Broadly, these areas of concern include the following:

Safety - It is not clear to what degree safety considerations would take precedence over environmental considerations should the Draft Essential Requirements be put in place. We believe safety in air transport is the primary concern in all cases. Environmental requirements must be made to be compatible with safety requirements. Indeed, Regulation (EC) 216/2008 on the common rules in the field of civil aviation and establishing a European Aviation Safety Agency states that "the principal objective of this Regulation is to establish and maintain a high uniform level of civil aviation safety in Europe." An "additional objective" is "to ensure a high uniform level of environmental protection."

Consistency with International Standards - The Explanatory Note states that the "essential requirements and their implementing measures should be fully consistent with the ICAO (International Civil Aviation Organization) framework." However, the content of the Draft Essential Requirements suggests significant divergence from ICAO principles in the Convention on International Civil Aviation (Chicago Convention). If this is not EASA's intent, the language should perhaps be modified to better reflect EASA intent.

Sense of Proportionality, Perspective - Neither the Explanatory Note nor the Draft Essential Requirements identify or define environmental problems that need to be addressed by a new regulatory regime under EASA. The need for standardization among Member States within the Community system is understandable, but this is different from creating a set of overly comprehensive, potentially heavy requirements that diverges from agreed international requirements. In addition, the approach outlined in the Draft Essential Requirements does not appear to recognize the significant improvement in aviation's environmental impact for decades. Moreover, in several cases, the Draft Essential Requirements would propose to insert EASA's judgment in the place of an operator or captain in safety- and business-related decisions that, at the moment, are taken on a daily basis without any problems.

Clarity - The Draft Essential Requirements contain many terms and concepts that are undefined, broad, ambiguous, subjective, and without scientific basis. While we understand that the adoption of these Essential Requirements would require later development of more detailed Implementing Rules, it is difficult to support a document with such vague terms without having a clearer, more certain basis for understanding what is to come.

comment 750

comment by: *European Microlight Federation*

The European Microlight Federation (EMF) is a pan-European organisation representing some 40,000 microlight pilots in 23 European nations. The publication of yet another large NPA written in technical English, indecipherable to most of our members, continues to make a mockery of the consultation process.

Moreover, this particular NPA, probably more than any other, contains judgemental statements which demonstrate the extent to which the author is

both prejudiced and ill-informed with regard to microlight aircraft. Indeed, the inconsistencies between this NPA and its predecessors suggests that the author may not have read earlier NPAs.

comment 753

comment by: *Europe Air Sports PM*

Europe Air Sports is an association of the European National Aero Clubs, and European Air Sports Unions, with the objective to co-ordinate regulatory matters in Europe.

We have a strong interest in this NPA 2008-15 because we strongly believe that the grown regional differences in Europe are much better handled and more effective for the protection of the environment when they are tailored by the regional level based on expert knowledge of the situation.

We believe that the environment must not be split in different responsibilities but must be under the responsibility of one body. That is why a European Environmental Agency was established in 1990.

We would also like to point out that majority of sports and recreational activities are in fact environment friendly especially "ultralights" compared to the traditional GA and commercial transport ones.

Europe Air Sports fully supports comments delivered by EAS member organisations.

comment 760

comment by: *Light Aircraft Association of the Czech Republic*

Light Aircraft Association of the Czech Republic - LAA CR is association of pilots, builders, designers, manufacturers and operators of light aircraft with MTOM up to 450 kg.

It has 6 400 members and registers 7 900 aircraft and 10 000 pilots. LAA CR is a competent authority for Certification, Licencing and Operation of microlights in the Czech Republic. This covers paragliding, powered paragliding, hang gliding, gyroplanes, helicopters, weight shift and aerodynamically controlled microlight.

We have a strong interest in this NPA 2008-15 because we strongly believe that the grown regional differences in Europe are much better handled and more effective for the protection of the environment when they are tailored by the regional level based on expert knowledge of the situation.

We believe that the environment must not be split in different responsibilities but must be under the responsibility of one body. That is why a European Environmental Agency was established in 1990.

We would also like to point out that majority of sports and recreational activities are in fact environment friendly especially "ultralights" compared to the traditional GA and commercial transport ones.

comment 788

comment by: *European Sailplane Manufacturers*

The European sailplane manufacturers have some general comments regarding

the issue of environmental protection and associated activities of the authorities and EASA.

First it should be noted that General Aviation especially in the sector of small aircraft which are mostly operated for recreational flying have an inherent desire to improve in regard to noise emission (other emissions typically play only minor roles for these small aircraft).

The reason is the fact that within a increasing noise sensitive society small aviation can only stay and prosper if it is willing an able to minimise the environmental impact of aircraft operations.

An airport or an airline always will claim that limitations for noise control are unacceptable due to economical reasons and that jobs and money is at stake and can thereby elude too stringent noise abatement measurements. A small airport and the private pilots normally have to accept limitations - especially if the other option would be total shut-down of operations.

Second it has to be noted that the road toward less noisy aircraft has become much more difficult due to effects caused by authorities and EASA in regard to certification issues:

a) The need to have an approved design organisation before development of a new engine / propeller / aircraft modification may begin has stopped technical progress for many small organisations (or one-person companies) associated with this field in former times.

b) Also the EASA fees and charges system makes development of engines and propellers much less economical feasible as these products simply cannot generate the profit needed just to pay these fees.

(Example: it has become more costly to certify an engine than the associated aircraft in the CS-22 / CS-VLA categories as the certification fee is now 2.5-times as high for the engine than for the aircraft).

c) The earlier possibility for a manufacturer to introduce an new engine / propeller by inclusion of these parts into the new aircraft type certificate has been eliminated. Therefore adoption of engines or propellers from non-aviation-certificated worlds has been stopped. This is very unfortunate because there are fields outside certified aviation where better / more efficient products already exist and could be adopted easily if not the onerous certification issue existed.

The result is now a scheme where technological advance has become very slow and expensive.

If EASA plans to harmonise environmental protection and include General Aviation then it must not be forgotten to include ways of dealing with this question which are adapted to the special needs of this aviation sector.

Beside affordable procedures it should also be considered to use a "stick and carrot" approach:

The "stick" would be the traditional inclusion / development of minimum requirements (e.g. maximum noise levels).

The "carrot" would be definition of a more stringent level of environmental protection where operation is still possible but if these harder limitations can be adhered to then attractive benefits for the developers / manufacturers / operators should exist. With such a scheme incentive would be given to these stakeholders not only to fulfil the minimum conditions but to be even better. This would certainly spur development toward better products and procedures.

If just the conventional approach (inclusion of additional and more stringent rules coupled with increase of costs and fees) is taken then only minor improvement regarding environmental impact but a further decline of General Aviation might be the result.

comment 802

comment by: ASD

RESPONSE FROM ASD TO THE EASA PROPOSAL ON ENVIRONMENTAL PROTECTION (NPA 2008-15)

Introduction

The ASD Air Transport Commission requested that the ASD Airworthiness Committee and the ASD Environmental Committee assemble a common, high level view of the NPA 2008-15 (Environmental Protection) and present that view to EASA. This document, which represents the view of European manufacturing industry, is the outcome of that exercise.

We would like to point out that prior to the formal establishment of EASA, our industry had requested that the Agency become responsible for the airworthiness and environmental (noise and emissions) certification of our products, using the same process for both activities and with ICAO Annex 16 being referred to as the applicable Essential Requirements for product environmental certification. That request was fully supported by European institutions and was eventually reflected clearly in Regulation (EC) 1592/2002 establishing the Agency.

Following a review of the NPA and a meeting of several ASD members with EASA on 20th October 2008 on the subject, we understand that the proposals contained in the NPA would maintain this dual responsibility for product certification and extend it to other areas of the Agency's remit. Despite serious concerns (see under "Noise and Emissions Standards" below) over provisions that might allow a departure from ICAO Annex 16 environmental certification standards for products, and while not being competent to judge the situation of the other professions concerned, we confirm that ASD are supportive of the objectives of the NPA and the general principles that it attempts to embody. We note that adoption of such a proposal has the advantage that a single European body would be positioned to oversee both safety and environmental regulation of the various parties, thereby allowing considered assessments to be made on matters that affect both of these subjects while avoiding potential conflicts between two separate regulating bodies.

There are some important concepts and issues that we believe should be highlighted in the text of the final EASA Opinion and these are explained below.

Notwithstanding the above, individual ASD companies have a number of detailed comments which will be forwarded to EASA separately.

Safety and Environmental Protection Compatibility

EASA, other regulators and industry have worked relentlessly in their determination to improve aviation safety with the result that significant improvements in aircraft Accident and Incident rates have been achieved in Europe and worldwide.

The continuation of this effort must never be compromised. Safety must continue to be the fundamental pillar of European aviation regulation.

Nevertheless, manufacturing industry recognises the importance of investing in measures to protect the environment. Investment in this area continues to increase to unprecedented levels with the result that evermore-stringent noise and emissions standards can be met. There will be no let-up by manufacturing industry in actively pursuing improvements in this area.

We note that, for product design, the proposed Essential Requirements of NPA 2008-15 emphasise the priority of environmental protection above all other considerations - with no apparent limit to the measures required to achieve this objective. This is, of course, impractical and is not, we realise, the actual intent of the proposal. Nevertheless, the need to clarify this within the EASA Opinion is essential since a strict interpretation of it would likely undermine the fundamental objective of safety and could lead to an unacceptable distortion of competition between EASA States and non-EASA States.

A further aspect to consider is the need for careful and progressive development of rulemaking in the area of environmental protection. Experience suggests that mature rules are the result of decades of technological development, lessons learned from in-service experience and ongoing rulemaking. In this way, inconsistencies and misunderstandings between stakeholders are avoided while the boundaries of the associated technology are explored. We would urge that such a gradual approach is also applied to environmental protection rulemaking to avoid inconsistencies in its application and to avoid conflicts with safety requirements.

We do not attempt to make individual proposals to address these issues here but in recognising that a significant review of the proposed Essential Requirements and the drafting of additional material will be necessary to develop this subject to maturity, ASD welcomes the offer by EASA to work together in developing this package.

Noise and Emissions Standards

ASD understands the legal uncertainties associated with referencing ICAO Annex 16 standards in its regulations and the consequent desire to adopt these same standards directly in its Implementing Rules. We understand from EASA that it is not the intent to move away from the internationally accepted ICAO standards. ASD welcomes this clarification and notes that, in an industry with no geographic barriers to operations, it would be unacceptable if all manufacturers were not subject to the same global environmental standards.

The process for developing these standards is well established in the ICAO framework and we would support the continued involvement of EASA, along with other aviation regulators, in ICAO's efforts in this area.

General

To reiterate some of the points mentioned on the occasion of our meeting on 20th October 2008:

- we believe that it is important that the participation of manufacturing industry, as suppliers of the products and owners of the technology, should now be formalised in the conclusion of this rulemaking process.
- it will be important for EASA to influence the position of the European Commission in ensuring a sensible balance on environmental issues in air transport. ASD is at EASA's disposal to contribute with proposals and

recommendations.

- further to the criticisms made on several occasions by ASD to the principles of the current Fees and Charges scheme, ASD would oppose any attempt to redistribute the funds generated from the present scheme to support EASA's wider responsibilities in environmental protection.
- it is important that the development of regulations on environmental protection is consistent with the development of SESAR in the Single European air transport system and that EASA interface, as required, to ensure this consistency.
- recognising the diversity of products and types of operations within air transport, ASD suggests that special attention be given to the particular cases of General Aviation and Rotorcraft so that the essential requirements and subsequent implementing rules accommodate the specific nature of the design and operation of these products.
- by referring to particular technologies and design features we believe that the proposed Essential Requirements for products are too prescriptive. Written in this way, such requirements would limit a designer's ability to innovate in defining acceptable technical solutions. The Essential Requirements should be limited to a description of the areas in which EASA will be authorised to propose Implementing Rules and adopt Certification Standards: they will therefore need to be amended accordingly and should provide the un-quantified performance objectives. This would leave EASA to develop rules and standards containing quantified minimum performance criteria - in a similar way to that in which airworthiness requirements are framed.

In summary, we recognise the value of coordinating aviation-related environmental protection requirements in Europe and note that this effort is still at an early stage.

ASD believe that it is important that the whole regulatory package (this NPA, proposed changes to the Regulation 216/2008 along with an associated Regulatory Impact Assessment) is published at the earliest opportunity in order to expose the total effect of these environmental protection proposals.

ASD looks forward to its member's involvement in this effort.

Michael C Sanders

(on behalf of the Aerospace and Defence Industries Association of Europe)

comment 803

comment by: *Rolls-Royce plc [DGJ]*

Dear Sir,

NPA 2008-15 Essential Requirements for Civil Aviation Environmental Protection

Thank you for the opportunity to review the Agency's proposal for regulating Environmental Compatibility, as expressed in the above NPA. Through this letter, I would like to bring to your attention Rolls-Royce's views on the proposal.

Rolls-Royce believes that the two issues of aircraft safety and environmental protection are both of great importance in all aspects of civil aviation, from design and manufacture, through operation and on to retirement and disposal.

Nevertheless, there will inevitably be occasions where aircraft safety will drive

design in one direction whilst reducing environmental impact will drive design in another direction. To avoid potential compromise, clear and unambiguous safety regulation and safety regulators are essential. No aspect of environmental regulation (which might affect the aircraft design specification, its operational procedures or the way in which it is regulated) can be allowed to diminish safety - this is not made clear in the proposed Essential Requirements.

With regards to the design requirements to be imposed, ICAO already sets global standards for both Noise and Emissions for Transport Category aircraft so, for such aircraft and operations, it is unclear

what additional benefit would accrue from its inclusion within the EASA system. We would urge EASA to promote the evolution of the ICAO/CAEP requirements in preference to generating a set of requirements unique to Europe which could potentially lead to unintended consequences and inadvertently penalise European Industry.

However, should this type of regulation be seen as unavoidable, the proposal does not adequately define the relationship between EU law and the ICAO Annex for those products which have already been covered through CAEP. The basic premise must be that, where ICAO standards have been set, these are the standards which apply and there must be legal certainty of this. It would not be acceptable to have different sets of requirements in Europe from those with which we have to show compliance in the rest of the world. This is accepted in paragraph 34 of the Explanatory Notes; however, the proposed Essential Requirements do not make this clear.

We would also urge EASA to take full account of the activities in progress with other organisations such as Eurocontrol which might already cover some of the aspects discussed in the NPA, any proposed regulation should not create overlapping (and potentially contradictory) requirements.

At a technical level, there are aspects of the proposed Essential Requirements which we would urge be altered. For example:

- Some of the text is loose and the use of terminology such as "minimise" without any constraint presents requirements which are both impossible to meet and impossible to regulate.
- We would recommend that reference should NOT be made to specific design features or technologies as occurs, for example, in paragraph II.1.c. In this particular case, for RR products, staged fuel management systems would not be introduced to minimise specific fuel consumption (SFC); on the contrary, such designs would be introduced for their beneficial effects on emissions.
- There is an inference that SFC is less damaging than those species listed in paragraph II.1.b. It could be argued, however, that poor SFC leads to increased fuel burn and, therefore, increased CO₂ emissions. It also has a consequential effect on fuel uplift, aircraft all-up-weight and, therefore, thrust required, thereby potentially increasing the emission of all the species identified in paragraph II.1.b. Today's reality is that, once the requirements of ICAO Annex 16 Volume II have been met, all of these species are considered and optimised.

Rolls-Royce would be happy to assist the Agency in drafting more appropriate text.

With regard to the Agency's involvement in the oversight of environmental impact, it is worth noting that EASA's assessment of engine designs against the established ICAO standards during Certification programmes is an efficient mechanism which we fully support. Furthermore, EASA operates a regulation

development and administration system which works well and is well understood; it may be advantageous to all concerned if such administrative systems were adopted for the development of environmental regulation, provided that there is no adverse impact on the development of safety regulation.

In summary, Rolls-Royce is supportive of the principles which we believe are driving this initiative. As a company, we take very seriously the need to develop designs and management techniques to reduce our products' environmental impact. In fact, last year we spent over £800 million in R&D, two thirds of which was aimed at improving the environmental compatibility of our products and operations.

We would ask EASA to consider the points made above as a view of industry's broader needs. We look forward to working with the Agency to develop a set of Essential Requirements necessary to meet those needs.

Yours faithfully,
for Rolls-Royce plc
Darryl Johnson
Airworthiness Specialist [ML-901]

comment

805

comment by: *Satu Routama*

Finavia is a commercial State enterprise under the Ministry of Transport and Communications in Finland. The company maintains Finland's network of 25 airports and the air navigation system. The organization employed about 1700 people.

Finavia wishes to point out that the environmental legislation in Member States is designed to enable the locally relevant environmental protection measures. The competent authorities have the experience of local situation and the environmental impact. Thus they are in the best position to assess the necessary mitigation measures.

The local knowledge of the prevailing conditions and their impacts contributes the setting up of regulation and its application on environmental measures locally. Total understanding of environmental issues is necessary at the local and national level, and competence should also remain there. Local assessment of the environmental impact of aviation and other non-aviation activities gives the basis for picking up cost-effective measures to reach the environmental goals.

Due to the large scope of environmental issues Finavia regards that EASA and national aviation authorities have limited possibilities and resources in assessing, regulating and controlling environmental impact of aircraft and airports.

comment

810

comment by: *IACA International Air Carrier Association*

IACA would like to stress that many proposals by EASA may lead to

- a duplication of rules, as many requirements are already based on existing ICAO standards
- a unacceptable high administrative burden on airlines
- an unacceptable priority of environmental concerns over safety considerations. We hold the opinion that EASA should focus on its first mission (i.e. safety), which requires adequate expertise, staffing and resources for this

function.

Article 2 of the Basic Regulation 216/2008 clearly implies that environmental issues are an additional objective to be taken into account when drafting the rules or certifying equipment or aircraft. It also states that safety is the main objective.

To avoid duplication, IACA suggests that the Essential Requirements (ER) contained in NPA 2008-15 should be limited to Aircraft and Engine manufacturers/modifiers and/or Airspace designers. IACA requests the removal of any reference to maintenance personnel or organisations.

IACA finally deplores the obscure (and often naive) wording used throughout EASA's document. Words such as "some", "certain", "particular", "harmful" should never be used in the context of an NPA.

comment 818

comment by: CAA FI

On a European level the local aviation activities, environmental conditions and factors vary largely from one Member State to another. Therefore Finnish Civil Aviation Authority (FCAA) is concerned that EASA might have too limited resources to have a comprehensive responsibility. Therefore FCAA would emphasize the principle of subsidiarity in this field and prioritize the role of the local environmental authorities in local issues. However, when it is the interest of all to have common, community level action, we believe EASA would be the best coordinator as it already has the safety competence in the questions covered by this NPA. In such cases, the safety and environmental considerations could be matched from the beginning.

comment 823

comment by: Munich Airport

In particular the proposed Essential Requirements (ER) for environmental protection could result in significant costs & bureaucracy for questionable environmental benefits. We are concerned that various aspects of the proposed ER could conflict with safety objectives. We therefore urge EASA to seriously reconsider this proposal in particular the proposed Essential Requirements.

Moreover, introduction of any supra-national regulation should only occur with a simultaneous renunciation of relevant national regulations. This has for example happened with EASA safety regulations, which have superseded national safety regulations. Unless there is a guarantee that new EASA rules would replace existing rules and simplify processes and procedures, there seems no justifiable reason to extend EASA's mandate. The bottom line is that we need better regulation, not more regulation. In any case aviation have to be treated the same way as other modes of transports or industries. The air transport industry won't accept higher standards for emissions and noise than other sectors.

We are deeply concerned with the statement in paragraph 31 (IV Content of the Notice of Proposed Amendment) that *'trade-offs between safety and economic objectives should be made on political rather than on executive level'*. Our principals have always been, and always will be, that safety cannot be compromised for economic benefit or any other reason.

One area where EASA would be of benefit is in promoting the adoption of better airspace management within Europe, with the significant environmental benefits that have already been identified would result. We are, however,

mindful of potential overlaps/conflicts with the Single European Sky (SES) and SESAR initiatives.

Our other main concern is in how it would propose to cover non-EU operators, to ensure that market distortion issues are dealt with effectively so as not to penalise EU carriers in favour of their international competitors. We would note the increased risk of international disputes and trade wars if EASA were to try to impose local regulations on all the industry. There is precedent for this in the application of the "Hush-kit" Directive in the late 1990's, which resulted in financial threats to EU carriers and application of the ICAO Article 84 process, which finally resolved the issue. This would not be a situation we would like to see repeated and could be severely damaging to EU carriers in the present financial climate.

We would also seek clarification on the interface and relationships between EASA, the EU Commissions and Eurocontrol. EASA could be a substantial benefit in the area of environmental protection if it were able to rationalise the significant range of regulations issued by the various regulating bodies. We would, however, need guarantees that any subsequent EASA rules would replace those existing and hence a simplification of the whole system would result. If this is not forthcoming, then the prospect of overlapping potentially contradictory legislation with associated additional costs and more bureaucratic processes, is not something that we feel we could support. We believe that local regulations are often better as they can take better into account the specific needs of the residents of airports.

comment

829

comment by: *The Swedish Environmental Protection Agency*

Summary

SEPA considers that an investigation should be conducted into whether it is necessary to establish environmental requirements for airports and air operations at a Community level.

If such rules are required, SEPA considers that Article 175.1 of the EC Treaty is the proper legal basis. SEPA opposes basing the rules on Article 80.2, since it could prevent Member States from imposing the additional requirements needed to protect public health and the environment.

EASA does not discuss the issue of how the Agency's new powers could be exercised in a way that is compatible with the rights of individuals under EC legislation and international conventions. Any regulation of environmental requirements for airports and air operations must enable individuals to exercise their rights.

The environmental requirements listed in EASA's proposal are of a very general nature and do not ensure an acceptable level of protection. On the part of Sweden, they could entail a considerable reduction in the protection of public health and the environment.

The wording of the proposal

In the opinion of SEPA, it is difficult to discern from the document which amendments to Regulation 216/2008 EASA considers to be necessary. There would have been greater opportunity to submit relevant views if EASA had submitted draft legislation or had substantiated the proposals in some other

way. For example, it is not clear which decision-making procedure is to be applied, nor how the system with common environmental requirements for airports and air operations is generally intended to function. The views of SEPA should be considered against this background.

The need for regulation at a Community level

According to the 'principle of subsidiarity', decisions regarding action at a Community level should only be made if the objective of the action cannot be achieved by the Member States and can therefore be better achieved by Community action (Article 5 of the EC Treaty). The Community should only legislate if this is necessary.^[1] The material that EASA provided for consultation does not contain any detailed deliberations concerning the application of the principle of subsidiarity. In light of this, SEPA considers that an investigation should be conducted to determine whether it is necessary to establish environmental requirements for airports and air operations at a Community level.

[1] See Protocol annexed to the Treaty of Amsterdam on the application of the principles of subsidiarity and proportionality. Among other things, this Protocol contains guidelines for applying the principle of subsidiarity.

Legal basis

Legislative instruments that impose health and environmental requirements on site-related operations must be decided under Article 175.1 of the EC Treaty. This means that the Member States can impose requirements for more stringent protective measures (Article 176 of the EC Treaty). This could be said to be an expression of the principle of subsidiarity; in some cases, it is necessary to establish minimum requirements for site-related operations at a Community level, whereas requirements beyond this require knowledge of local conditions and should consequently be an issue for the individual Member States.

Article 80.2 is the legal basis for Regulation 216/2008; that is, rules for aviation. EASA's proposal seems to imply that EASA is the agency to decide on the environmental requirements for individual airports and the operations conducted there.

EASA's reasons for the proposals show that the intention is that the Member States are not to make decisions on issues encompassed by EASA's decision-making powers. The issue of whether the Member States or their public authorities should have any participation at all in the decision-making process is not mentioned. Thus, the proposal represents a deviation from the environmental regulation in EC law in relation to site-related operations. As regards a legal basis, SEPA wishes to emphasise that there is a big difference between the regulations concerning environmental requirements that are closely linked to free movement, such as the environmental requirements imposed on aircraft, and on site-related operations.

According to the case-law of the European Court of Justice, the legal basis for a legislative instrument should be established on the basis of objective criteria which may be subject to judicial review. These criteria include, among other things, the purpose and content of the legislative instrument.^[1]

SEPA believes that the aim of introducing environmental regulations for airports and the content of such provisions would differ markedly from the

purpose and content of the current Regulation (Regulation 216/2008). Although the environmental requirements for aircraft in this context may be viewed as a secondary aim in relation to the purpose of regulating aviation, SEPA is of the view that the protection of the environment is the primary aim of imposing environmental requirements on airports.^[2] For this reason, environmental requirements for airports should be regulated by a special legislative instrument, or alternatively that Regulation 216/2008 should be granted a dual legal basis.

SEPA has concluded that an application of the case-law of the European Court of Justice as regards a legal basis for Community legislative instruments would mean that Article 175.1 would be the proper legal basis for provisions concerning environmental requirements for airports and air operations. SEPA opposes such requirements being based on Article 80.2, since it could prevent Member States from imposing the additional requirements needed to protect public health and the environment.

[1] See, for example, judgment in Case C-300/89, *Commission v Council* and in Case C-269/97, *Commission v Council*

[2] Cf. judgment of the European Court of Justice in Case C-336/00, *Republik Österreich v Huber*

The rights of individuals

It is a fundamental legal principle that the public and other affected parties are entitled to participate in the decision-making processes for operations that may have an impact on health and the environment. This principle is, for example, expressed in the Aarhus Convention and the Espoo Convention, which have both been implemented in EC law. According to the Aarhus Convention, the general public is entitled to have access to information, entitled to participate in decision-making and entitled to obtain access to justice. The Espoo Convention imposes requirements on environmental impact assessments for projects with a transboundary impact. One important purpose of the environmental impact assessments is to give the public the opportunity to submit views and influence projects. Major airports are among the projects covered by the Espoo Convention.

The Espoo Convention and Aarhus Convention have, among other things, been implemented in Directive 85/337/EEC (the EIA Directive), which imposes requirements for environmental impact assessments on, for instance, airports, regardless of whether they have a transboundary impact or not. There is also an EC Directive to safeguard the public's right to environmental information: 2003/4/EC.

According to the case-law of the European Court of Human Rights, noise from airports is an issue that affects everyone's right to respect for their private and family life and their home in accordance with Article 8 of the European Convention for the Protection of Human Rights and Fundamental Freedoms.^[1] According to Article 13 of the Convention, everyone whose rights have been violated under this Convention shall have access to an effective remedy before a national authority.

EASA does not discuss the issue of how the Agency's new powers could be exercised in a way that is compatible with the rights of individuals under the above-mentioned EC legislative instruments and international conventions. Regulations in this area must enable individuals to safeguard their rights. For example, SEPA considers that individuals living near a planned or existing

airport must be entitled to participate in the decision-making process for flight paths to and from the airport.

Level of protection

In Sweden, work has been underway over the past 40 years to impose environmental requirements on airports in connection with environmental permit proceedings. A practice has emerged involving the consideration of permits for airport operations while taking into account the impact of an operation on the environment and public health and, when necessary, regulating areas in the form of conditions. For example, the following matters may be mentioned and regulated within the framework of the consideration of a permit:

- maximum number of air-traffic movements
- entry and exit paths within a certain radius of the airport and up to a certain altitude for aircraft, and the number of air-traffic movements on each flight path
- flight procedures
- navigation systems
- maximum number of visual approaches
- noise-protection measures
- collection of de-icing chemicals
- use of chemicals to combat snow and ice
- use, handling and storage of chemical products
- collection and purification of waste and run-off water
- collection of polluted snow
- emissions from fire drill sites
- air emissions from aircraft, including taxiing and holding
- air emissions from work and service vehicles
- air emissions from land transport to and from the airport
- emissions of volatile organic compounds (VOC)
- nuisance caused by smells in the vicinity of the airport
- the airport's energy supply
- monitoring programme that enables an assessment of whether conditions are being complied with
- information function for environmental issues at the airport

The purpose of environmental permit proceedings is to examine the issue of the protective measures, restrictions and other precautions that, according to national environmental legislation, should reasonably be imposed on an operator in order to prevent or rectify the nuisance caused by the operation conducted at the airport and in its vicinity. When conducting environmental permit proceedings, various assessments are made with the intention of mitigating the impact of the operation as far as possible and in order to achieve, from all perspectives, an appropriate balance between the diverse interests which may be affected by such proceedings. The relevant authorities are afforded the opportunity of participating in the process, as this is necessary for achieving the purpose of the proceedings.

The environmental requirements listed in EASA's proposal are of a very general nature and do not ensure an acceptable level of protection. Consequently, it may be questioned whether the proposal contributes to the objective contained in Article 2 of the EC Treaty, which stipulates that the Community must achieve a high level of environmental protection. On the part of Sweden, regulation according to this proposal could entail a considerable reduction in the protection of public health and the environment.

[1] Judgment of 2 October 2001 in the Case *Hatton and Others v the United Kingdom*

comment 830

comment by: *The Swedish Environmental Protection Agency*

Sammanfattning

Naturvårdsverket anser att det bör utredas om det är nödvändigt att fastställa miljökrav för flygplatser och flygverksamhet på gemenskapsnivå.

Om det finns ett behov av sådana regler, anser Naturvårdsverket att artikel 175.1 i EG-fördraget är den korrekta rättsliga grunden. Naturvårdsverket motsätter sig att reglerna grundas på artikel 80.2, eftersom det skulle kunna hindra medlemsstaterna från att ställa de ytterligare krav som behövs för att skydda människors hälsa och miljön.

EASA tar inte upp frågan om hur byråns nya befogenheter ska kunna utövas på ett sätt som är förenligt med enskildas rättigheter enligt EG-lagstiftning och internationella konventioner. En reglering av miljökrav för flygplatser och flygverksamhet måste möjliggöra för enskilda att utöva sina rättigheter.

De miljökrav som räknas upp i EASA:s förslag är mycket allmänt hållna och säkerställer inte en acceptabel skyddsnivå. För svensk del skulle de kunna innebära en avsevärd sänkning av skyddet för människors hälsa och miljön.

Förslagets utformning

Naturvårdsverket anser att det är svårt att av dokumentet läsa ut vilka ändringar i förordning 216/2008 som EASA anser bör göras. Möjligheten att lämna relevanta synpunkter hade varit större om EASA hade lämnat författningsförslag eller på annat sätt konkretiserat förslagen. Exempelvis framgår det inte vilket beslutsförfarande som ska tillämpas eller hur systemet med gemensamma miljökrav för flygplatser och flygverksamhet i övrigt är tänkt att fungera. Naturvårdsverkets synpunkter ska ses mot den bakgrunden.

Behovet av gemenskapsreglering

Enligt den s.k. subsidiaritetsprincipen ska åtgärder på gemenskapsnivå bara beslutas om målet med åtgärderna inte kan uppnås av medlemsstaterna och därför bättre kan uppnås genom en gemenskapsåtgärd (artikel 5 i EG-fördraget). Gemenskapen ska endast lagstifta om det är nödvändigt[1]. Det material som EASA lämnat ut för samråd innehåller inte några närmare överväganden om tillämpningen av subsidiaritetsprincipen. Naturvårdsverket anser mot den bakgrunden att det bör utredas om det är nödvändigt att fastställa miljökrav för flygplatser och flygverksamhet på gemenskapsnivå.

Rättslig grund

Rättsakter som ställer hälso- och miljökrav på platsanknutna verksamheter beslutas med stöd av artikel 175.1 i EG-fördraget. Det innebär att medlemsstaterna kan ställa krav på strängare skyddsåtgärder (artikel 176 i EG-fördraget). Detta kan sägas vara ett uttryck för subsidiaritetsprincipen - i vissa fall är det nödvändigt att fastställa minimikrav för platsanknutna verksamheter på gemenskapsnivå, medan krav därutöver kräver kännedom om lokala förhållanden och därför bör vara en fråga för de enskilda medlemsstaterna.

Den rättsliga grunden för förordning 216/2008 är artikel 80.2, dvs. bestämmelser för luftfart. EASA:s förslag synes innebära att det är EASA som ska besluta om miljökrav för enskilda flygplatser och verksamheten som

bedrivs där. Av EASA:s motivering till förslagen framgår att avsikten är att medlemsstaterna inte ska besluta i de frågor som omfattas av EASA:s beslutskompetens. Frågan om medlemsstaterna eller deras myndigheter över huvud taget ska delta i beslutsprocessen tas inte upp. Förslaget innebär alltså en avvikelse från EG-rättslig miljöreglering av platsknutna verksamheter. Naturvårdsverket vill understryka att det i frågan om rättslig grund är en stor skillnad mellan regler som rör miljökrav med en nära anknytning till de fria rörligheterna, såsom miljökrav på flygplan, och platsknutna verksamheter.

Enligt EG-domstolens praxis ska den rättsliga grunden för en rättsakt fastställas utifrån objektiva kriterier som kan bli föremål för domstolsprövning. Bland dessa kriterier ingår bland annat rättsaktens syfte och innehåll[2].

Naturvårdsverket menar att syftet med att införa miljöregler för flygplatser och innehållet i sådana bestämmelser skulle skilja sig markant från syftet med och innehållet i nuvarande förordning 216/2008. Medan miljökrav för flygplan i det här sammanhanget kan anses vara ett sekundärt syfte i förhållande till syftet att reglera luftfarten, så menar Naturvårdsverket att skyddet av miljön är det primära syftet med att ställa miljökrav på flygplatser[3]. Miljökrav för flygplatser bör därför regleras i en särskild rättsakt, alternativt att artikel 175.1 införs som en ytterligare rättslig grund för sådana bestämmelser i förordning 216/2008.

Naturvårdsverket slutsats är att en tillämpning av EG-domstolens praxis i fråga om rättslig grund för gemenskapens rättsakter skulle innebära att artikel 175.1 vore den korrekta rättsliga grunden för bestämmelser om miljökrav för flygplatser och flygverksamhet. Naturvårdsverket motsätter sig att sådana krav grundas på artikel 80.2, eftersom det skulle kunna hindra medlemsstaterna från att ställa de ytterligare krav som behövs för att skydda människors hälsa och miljön.

Enskildas rättigheter

Det är en grundläggande rättsprincip att allmänheten och andra berörda ska ha rätt att delta i beslutsprocesserna för verksamheter som kan påverka hälsa och miljö. Den principen kommer bl.a. till uttryck i Århuskonventionen och Esbokonventionen, vilka båda har genomförts i EG-rätten. Enligt Århuskonventionen ska allmänheten ha rätt till information, rätt att delta i beslutsprocesser och rätt till rättslig prövning. Esbokonventionen ställer krav på miljökonsekvensbedömningar för projekt med gränsöverskridande effekter. Ett viktigt syfte med miljökonsekvensbedömningarna är att ge allmänheten möjlighet att lämna synpunkter och påverka projekten. Större flygplatser ingår bland projekten som omfattas av Esbokonventionen.

Esbokonventionen och Århuskonventionen har genomförts i bl.a. direktiv 85/337/EEG, det s.k. MKB-direktivet, som ställer krav på miljökonsekvensbedömningar för bl.a. flygplatser, oavsett om de har gränsöverskridande påverkan eller ej. Det finns också ett EG-direktiv som ska tillgodose allmänhetens rätt till miljöinformation, direktiv 2003/4/EG.

Buller från flygplatser är enligt Europadomstolens praxis en fråga som berör var och ens rätt till respekt för sitt privat- och familjeliv och sitt hem enligt artikel 8 i Europakonventionen om skydd för de mänskliga rättigheterna och de grundläggande friheterna[4]. Enligt konventionens artikel 13 ska enskilda vars rättigheter enligt konventionen kränkts ha tillgång till ett effektivt rättsmedel inför en nationell myndighet.

EASA tar inte upp frågan om hur byråns nya befogenheter ska kunna utövas på ett sätt som är förenligt med enskildas rättigheter enligt nämnda EG-rättsakter och internationella konventioner. Regler på området måste möjliggöra för enskilda att tillvarata sina rättigheter. Exempelvis menar Naturvårdsverket att enskilda som bor i närheten av en planerad eller befintlig flygplats måste ha rätt att delta i beslutsprocessen för flygvägar till och från flygplatsen.

Skyddsnivå

I Sverige har det i 40 år pågått ett arbete med att ställa miljökrav på flygplatser vid miljöprövning. Det har utvecklats en praxis med att tillståndspröva flygplatsverksamheten med hänsyn till verksamhetens inverkan på miljön och människors hälsa samt att vid behov reglera frågor i villkor. Bland annat kan följande frågor tas upp och regleras inom ramen för tillståndsprövningen:

- högsta antal flygrörelser
- in- och utflygningsvägar inom en viss radie från flygplatsen och upp till en viss höjd för flygplan och andelen flygrörelser på respektive flygväg
- flygprocedurer
- navigeringssystem
- högsta antal visuella inflygningar
- bullerskyddsåtgärder
- uppsamling av avisningskemikalier
- användning av halkbekämpningskemikalier
- användning, hantering och förvaring av kemiska produkter
- uppsamling och rening av spill- och dagvatten
- uppsamling av förorenad snö
- utsläpp från brandövningsplatser
- utsläpp till luft från flygplan, inkl. taxning och väntan
- utsläpp till luft från arbets- och servicefordon
- utsläpp till luft från landtransporter till och från flygplatsen
- utsläpp av flyktiska organiska föreningar (VOC)
- luktolägenheter i flygplatsens omgivning
- flygplatsens energiförsörjning
- kontrollprogram som möjliggör en bedömning av om villkoren följs
- informationsfunktion för miljöfrågor på flygplatsen.

Syftet med miljöprövningen är att pröva frågan om vilka skyddsåtgärder, begränsningar och övriga försiktighetsmått som enligt den nationella miljölagstiftningen skäligen bör åläggas verksamhetsutövaren för att förebygga eller avhjälpa olägenhet av den verksamhet som bedrivs på flygplatsen och i dess omgivning. Vid miljöprövningen görs bedömningar med strävan att mildra effekterna så långt som möjligt och åstadkomma en från samtliga synpunkter ändamålsenlig avvägning mellan de olika intressen som kan beröras. Berörda myndigheter har möjlighet att delta i processen, eftersom det är nödvändigt för att syftet med prövningen ska uppnås.

De miljökrav som räknas upp i EASA:s förslag är mycket allmänt hållna och säkerställer inte en acceptabel skyddsnivå. Det kan därmed ifrågasättas om förslaget bidrar till målsättningen i artikel 2 i EG-fördraget att gemenskapen ska uppnå en hög nivå i fråga om miljöskyddet. För svensk del skulle en reglering enligt förslaget kunna innebära en avsevärd sänkning av skyddet för människors hälsa och miljön.

[1] Se det till Amsterdamfördraget bifogade protokollet om tillämpning av

subsidiaritets- och proportionalitetsprinciperna. Protokollet innehåller bl.a. riktlinjer för tillämpning av subsidiaritetsprincipen.

[2] Se bland annat dom i mål C-300/89, *kommissionen mot rådet* och i mål C-269/97, *kommissionen mot rådet*.

[3] Jfr EG-domstolens dom i mål C-336/00, *Republiken Österrike mot Huber*.

[4] Dom den 2 oktober 2001 i mål *Hatton m.fl. mot Förenade Konungariket*.

comment 831

comment by: *FAI Environmental Commission VP*

FAI is the Federation Aeronautique Internationale, the worldwide airports governing body. It is an organization of 100 countries involved in the airport disciplines of hanggliding, parachuting, gliding, paragliding, aerobatics, aeromodelling, ballooning, microlights, rotorcraft, astronautic records, and general aviation. It also governs aeronautic records. Activity includes technical commissions covering Airspace and Navigation, Aviation and Space Education, Amateur Built and Experimental Aircraft, Environmental, and Medico-Physiological. As such, it follows that all the people involved in those activities are extremely interested in the world's regulatory actions, not the least of which is what EASA does. What happens in one arena can be adopted by another!

The FAI Environmental Commission notes that many responders to NPA-2008-15 object to having their activity treated as if it were commensurate with airline and other commercial aviation activity. So this response to NPA-2008-15 is made for and on behalf of the FAI Environmental Commission. We support those objections. Many of the terms used in the NPA are not descriptive enough to be sure whether EASA means to include all aviation activity or not. It is totally inappropriate to consider airport activity the same as airline/commercial activity when it comes to determining what environmental rulemaking by EASA will encompass. Airports are too different to be treated the same.

The same applies to the areas from which airport activity takes place. Airport activities operate from other than major airports or aerodromes, whatever EASA may mean by such descriptions. Airport operations are conducted in areas that generally are fine contributors to environmental protection of both flora and fauna, compared to airline/commercial fully paved over operating areas.

To include airports in the discussion of noise production and air quality effects by airline/commercial operations, is a gross miscarriage of justice.

For a real example, consider a recent flight of over 400sm made with the consumption of only one gallon of fuel. That was for the tow to become airborne, continuing thereafter utilizing only the natural weather effects to sustain flight. It is only one of literally thousands of flights made with such small quantities of fuel.

The world airport community takes the air not only in their own country but does so in many other countries as well, moving with their airport equipment to take the air elsewhere for organized activity and as well for private activity. So what EASA does has an effect on airport participants around the world. EASA must recognize and account for the differences in airline/commercial aviation and airport aviation activity.

It should be noted that the FAI and all of its disciplines as enumerated above have fully approved an extensive Environmental Code of Conduct (see web

page: www.fai.org.environment/code_conduct). Thus, EASA's work for airports was accomplished several years ago and need not be addressed further!

comment 832

comment by: *SESAR Joint Undertaking*

Purpose

Within the current mandate of EASA, the focus is on regulation which aims to reduce the environmental impact of aviation at source, i.e. at the aircraft level in terms of products, maintenance and design.

The purpose of the Notice of Proposed Amendment (NPA) No 2008-15 is to discuss and define how the EASA system could best contribute to the environmental compatibility of civil aviation in its extended scope of competence, taking into account the overall community approach to environment protection. It had been considered appropriate to address at the same time the safety and environmental compatibility of aviation processes to ensure compliance with both sets of requirements.

The NPA is intended to consult stakeholders on the new concept. It will lead to the issuance of an Opinion by EASA to the European Commission (EC).

Position of the SESAR Joint Undertaking

It is the responsibility of the SESAR Joint Undertaking to conduct Research & Development activities that will enhance the environmental performance of the European Air Traffic Management System.

SESAR technologies and procedures will be implemented principally within the Single European Sky legislative framework. In this context, the implementation of distinct EASA regulatory framework does not presently appear to be adding value.

comment 833

comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*

ERA is deeply concerned with this EASA Notice of Proposed Amendment (NPA). It falls far below the normally high standards established by EASA: large parts of the document are ill-informed, badly constructed and irrelevant to the subject area being discussed. It is written in a non-professional manner that belittles the progressive development of air transport operating and safety procedures.

Many areas of the proposals are unquantifiable and lack proper justification. ERA is also extremely concerned with the implied trade-off between safety and environmental protection. In all cases of flight operations safety does and **MUST** continue to take precedence over any environmental protection measures. Many of the proposals in this NPA leave a great deal of ambiguity as to the relative importance of environmental measures versus safety - this must be clarified.

EASA should also be aware that the recent agreement by the European Parliament and Council will result in aviation joining the EU Emissions Trading Scheme from 2012. This will be the primary regulatory tool to address

aviation's CO2 emissions. The European Commission is also working on regulatory measures to address aviation NOX emissions and work is ongoing on aircraft noise.

In conclusion, ERA recommends in light of the above concerns on the content of the NPA and the ongoing work by other institutions that work by EASA on this subject is terminated.

comment 834

comment by: *Finnish Aeronautical Association - Kai Mönkkönen*

First we would like to point out and remind you about this, because **policy initiatives can not be based on the "one size fits all" approach:**

**COM (2007) 869 final
COMMUNICATION FROM THE COMMISSION**

An Agenda for Sustainable Future in General and Business Aviation

1. WHY GENERAL AND BUSINESS AVIATION ?

2. General and Business aviation is very diverse. It encompasses activities ranging from recreational flying with non-powered aircraft to complex operation of high-performance business jets and specialised aerial works. **This creates challenges, as policy initiatives can not be based on the "one size fits all" approach.**

6. At the initiative of the stakeholders and following broad consultations, the Commission has drawn an Agenda for sustainable future in General and Business aviation

2. GENERAL AND BUSINESS AVIATION WORKING FOR EUROPE

2.1. A growing sector with diversified fleet

7. The scope of this Communication covers: 1) all civil aircraft operations other than commercial air transport; 2) on-demand, remunerated, civil air transport operations. This scope includes, inter alia : specialised aerial works, **aerial training, recreational flying**, on-demand air taxi operations, and company/individual owned aircraft operated for business/professional purposes[8].

2.2. European General and Business aviation provides specific social and economic benefits.

37. In the context of the revision of the basic EASA Regulation, the Commission, assisted by the Agency, has consulted all the stakeholders with a view to drawing up implementing rules for the new Regulation. **In this respect the Commission undertakes to develop proportionate rules adapted to the complexity of the aircraft as regards both the maintenance and operation of aircraft, as well as crew licences.**

3.6.1. Noise issues

60. Most General and Business aviation aircraft, engines and other aeronautical products are already subject to uniform noise certification standards [22]. Nevertheless, residents of local communities in some Member States sometimes express concern about the noise impact of light aviation on their

quality of life. **The localised character of these activities and the relatively small size of the aerodromes involved are such that national, if not local, authorities should be best placed to assess the situation and, if necessary, find proper solutions.** Introducing noise-related operating restrictions for such small aerodromes at the Community level would, at this point in time, **be neither proportionate nor, given the subsidiarity principle, justified.**

In general section of NPA No 2008-15 Essential Requirements for Civil Environmental Protection it is said that its has to take consideration the **Regulation (EC) No 216/2008.**

In the first page of Regulation (EC) No 216/2008 it is said that regulation would **not be appropriate** to subject all aircraft to common rules, in particular aircraft that are of **simple design** or **operate mainly on a local basis**, and those that are home-built or particularly rare or **only exist in a small number**; such aircraft (and in our opinion operation also) should therefore remain under the regulatory control of the Member States, without any obligation under this Regulation on other Member States to recognise such national arrangements.

We do agree that EASA also should take care of the environmental area. **But it is important to have the different kind of landing strips, airfields, aerodromes, airports defined clearly and differentiate between them when it comes to regulation. In principal each strip of grass or field could be an airfield (or airport!) - but is not, and should not be covered by unnecessary regulation. We see a risk in forcing regulation for airports into airfields and landingsstrips etc.**

We propose that the Essential Requirements for Civil Environmental Protection should be re written in accordance with the sentence from **COM (2007) 869 final, COMMUNICATION FROM THE COMISSION**, An Agenda for Sustainable Future in General and Business Aviation: "**In this respect the Commission undertakes to develop proportionate rules adapted to the complexity of the aircraft as regards both the maintenance and operation of aircraft, as well as crew licences**". **And any of this kind of rules can not be based on the "one size fits all" approach.**

comment 835

comment by: CFM

We thank the EASA for providing the opportunity to stakeholders to comment on NPA 2008-15 on Essential Requirement for Civil Aviation Environmental Protection. Following a review of the NPA, we confirm that CFM is supportive on the objective of the NPA and on the general principle that EU's regulatory jurisdiction covers any environmental requirements imposed upon civil aviation. We also agree in principle that EASA be authorized by the EU to provide oversight of the environmental aspects of civil aviation, in addition to its current mission to provide safety oversight of civil aviation. The proposed Essential Requirement for Environmental Protection must be designed and implemented in a manner that will not jeopardize the Safety of civil aviation, and will keep the EU law in harmony with the international law defined by ICAO.

Current airworthiness regulations defined by the State's Authorities, in compliance with ICAO Standards have improved the aircraft accidents and

incident rates. This worldwide aviation safety improvement is the result of Authorities (to which EASA is a prime actor) and Industries tremendous efforts and investments in that area, that must be continue. Essential Requirements must state clearly that environmental protection must be implemented with a limit to achieve its objectives, where safety level of the civil aviation is ensured and maintained.

The objective for the EU to include in its regulation the Environmental Protection for Noise and Emission requirements, and by this way to fulfill the international ICAO agreements of the EU member states, is well understood and supported by CFM. For certification, those environmental aspects are already considered through Implementation Rule Part-21 and Certification Specifications (CS-34 and CS-36), it is not the case for new areas (Air Operations, Pilot Licensing and Third Country Aircraft) under the responsibility of EASA. We want to emphasize the need for the proposed Essential Requirements of the NPA to clearly refer to ICAO annex 16 standards for Noise and Emission requirements.

In addition, CFM has more detailed comments on the NPA, related to the paragraph B.II.1 for "Product design, manufacture and maintenance".

comment

837

comment by: *Direction Générale de l'Aviation Civile*

Before answering the five questions asked, DGAC would like to make a general comment regarding two issues of importance with regards to the situation of France and most certainly of other member countries :

First of all, it appears that air safety should be the primary concern with regards to issues of air paths and air traffic management (ATM). While it is naturally a concern for EASA, which has safety as its objective, and while there is no indication that this is not the case within the document, we believe that this priority should be explicitly stated in the document. For the time being, France believes all efforts should be concentrated on the safety aspect of EASA's mission, to be continued in line of the good results that have already been achieved.

Secondly, the principle of subsidiarity should be respected whenever possible. For environmental concerns, a local or national approach should be preferred whenever possible. Local solutions have been created and in most cases have greatly contributed to alleviate environmental concerns and local tensions, by the means of specially tailored and specific solutions.

comment

843

comment by: *CAA-NL*

The Netherlands considers the protection of the population from the adverse environmental effects of aviation to be of great importance. However, it is questionable whether this is the right time to encumber EASA with this matter. A political decision should be taken at Council level before consideration is given to the outline of this file and before an assessment is made of whether the described proposals are adequate. Furthermore, the Netherlands believes it is important that any new regulations should not lead to an increase in administrative burdens.

comment 849

comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*

- It is vital to avoid any trade off between safety and environment in the development of Essential Requirements for Civil Aviation Environmental Protection. There are numerous examples in the current NPA where environmental protection may override air safety requirements. **Safety must always be paramount.**
- Any regulation which aims at achieving environmental benefit through operational means must be assessed against its cost
- Any environmental benefit achieved through operational measures must also be assessed against its effects on the commercial viability of an operation
- There should be no EU specific standards development that are not internationally acceptable
- There is a blurring of the role of Eurocontrol and EASA on ATM matters and this should be resolved
- The financial implications of the development of these requirements on EASA be assessed and considered. This should include an assessment of who will fund these activities.
- Environmental measures that complement safety are acceptable but not measures that are at the expense of safety are unacceptable
- The EU Principles of Better Regulation should be followed at all times in the development of the essential requirements and any further proposals.
- The development of essential requirements should incur no additional bureaucratic procedures for air operators or regulators.
- Concern over maintenance personnel objectives proposed in the requirements
- The use of vague, unquantifiable terms, throughout the document does not help clarify exactly what is being proposed or what is required. For example use of words such as "inappropriate", "particularly harmful to the environment" are indefinable
- The EU Balanced Approach should be implemented and followed in all cases.

comment 892

comment by: *Président of CIRENA*

Depuis sa création, le CIRENA, Collectif Inter associatif du Refus des Nuisances Aériennes (www.cirena.net) se bat pour la réduction des nuisances aériennes dans une zone éloignée de plusieurs dizaines de kilomètres de l'aéroport Roissy Charles de Gaulle mais particulièrement impactée par les nuisances sonores et chimiques générées par les aéronefs qui y atterrissent ou qui en décollent..

Sa plate-forme d'action se résume aux trois points suivants :

- Relèvement des altitudes de survol de nos villes du Nord-ouest Francilien au-dessus de 3000 mètres et amélioration des trajectoires et des procédures d'approche,
- Limitation impérative du nombre de mouvements annuels sur Roissy à un maximum de 500.000 (2 fois Orly),
- Suppression définitive des vols de nuit et instauration d'un véritable couvre-feu de huit heures d'affilée sur Roissy (de 23h à 7h) comme le recommande l'Organisation Mondiale de la Santé,

L'administration et notamment la DGAC ont toujours fait la sourde oreille

devant ces revendications et nous avons été obligés d'estimer en justice pour, enfin, avoir un contact avec cet organisme.

La DGAC ne nous semble pas véritablement concernée par l'ensemble des problèmes environnementaux que pose le fonctionnement des aéroports et l'élaboration du nouveau PEB de Roissy qui envisage la croissance de cette plate-forme jusqu'à 680 000 mouvements annuels le montre bien.

L'ACNUSA, dont les rapports annuels sont essentiels, aurait pu jouer un rôle important mais celui-ci a été volontairement réduit par l'Etat qui ne lui a donné que la possibilité d'émettre des avis et ses compétences ne s'étendent pas à la pollution chimique.

Le CIRENA estime en conséquence que les organismes nationaux ne s'occupent pas assez des questions environnementales ou n'ont pas des compétences suffisamment larges pour être efficaces.

C'est la raison pour laquelle le CIRENA, qui est membre de l'UFCNA souhaite que l'Agence européenne de la sécurité aérienne (AESA) étende ses compétences à l'environnement des aéroports et aux nuisances qui découlent de leur fonctionnement.

Translation by Centre de Traduction

Ever since its creation, CIRENA, Collectif Inter associatif du Refus des Nuisances Aériennes (www.cirena.net) has fought for the reduction of aircraft pollution in a zone which, although it is situated several tens of kilometres from Roissy Charles de Gaulle airport, is particularly affected by the noise pollution and chemical pollution generated by the aircraft which take off and land there.

Its area of activity can be summarised as the following three points:

- raising of the altitudes of flights over the towns and cities in the north east of the Île-de-France above 3,000 metres and improvement of flight paths and approach procedures;
- essential limitation of the annual number of movements at Roissy to a maximum of 500,000 (twice as many as at Orly);
- permanent withdrawal of night flights and institution of a veritable curfew of eight hours at a stretch at Roissy (from 11 p.m. to 7 a.m.), as recommended by the World Health Organization.

The administration and, in particular, DGAC have always turned a deaf ear to these claims, and we have been obliged to resort to legal proceedings in order, finally, to make contact with this organisation.

DGAC does not appear to us to be truly concerned by all of the environmental problems posed by the operation of the airports, and the formulation of the new noise exposure plan (PEB) for Roissy, which envisages the growth of this platform to 680,000 annual movements, clearly illustrates this.

ACNUSA, whose annual reports are essential, could have played an important role, although this was reduced intentionally by the state, which only offered it the possibility of issuing advice, and its activities do not extend to chemical

pollution.

As a consequence of this, CIRENA considers that the national organisations do not concern themselves sufficiently with environmental questions or do not possess sufficiently broad competence to be effective.

It is for this reason that CIRENA, which is a member of UFCNA, wishes the European Aviation Safety Agency (AESAs) to extend the scope of its activities to include the environment of airports and the pollution resulting from their operation.

comment 893

comment by: *Jean-Baptiste CERVERA*

L'ADERA fait partie des administrateurs de l'UFCNA (Union Française Contre les Nuisances des Aéronefs).

L'ADERA vous confirme que suite aux informations de l'UFCNA, elle est tout a fait favorable à l'élargissement des compétences de l'Agence Européenne de la Sécurité Aérienne (AESAs), comme préconisé par l'amendement NPA 2008-15.

L'ADERA, dans le cadre de vos prérogatives désirerait vous soumettre un dossier sur les problèmes environnementaux et de sécurité de l'aéroport de Tillé-Beauvais (60 Oise).

Pour cela, **nous aimerions connaître votre adresse postale** et à qui, en français, envoyer un dossier complexe qui ne peut se résumer en un simple email et qui comprend des formats A3 ?

Toutefois voici quelques grandes lignes essentielles de ce dossier.

L'aéroport de Tillé-Beauvais dispose d'un Plan d'Exposition au Bruit (PEB) que l'ADERA conteste au Tribunal Administratif à justes raisons depuis son élaboration de 2006. Ce PEB a été arrêté sans aucun respect des volontés de la population environnante.

Ce P.E.B. est non conforme aux préconisations de l'OACI et **nous serions favorable pour avoir l'avis de AESAs;**

Dernièrement de nouvelles trajectoires de décollages en slalom ont été mises en place. L'ADERA conteste ces trajectoires dangereuses qui de plus impactent plus de population. Ces trajectoires sont contraires aux préconisations même de la DGAC. En CCE préfectorale, le professionnel Ryanair a voté contre ces nouvelles trajectoires!

De même, contre l'avis de la population, l'on nous a rasé un bois. L'ADERA a demandé la loi qui permet cet arbitraire aux instances françaises, sans jamais avoir de réponse.

Pourtant pour vanter cet aéroport, il est prénommé aéroport vert!!!!

L'aéroport de Tillé-Beauvais a la particularité d'être englobé en zone urbaine. Les premières maisons en latéral sont à 250 mètres de la piste, d'autres à environ 350 mètres dans l'axe de la piste à également environ 20 à 25°, d'autres sont à environ 1kilomètre à 1,4 kilomètre à 10 à 15°. Si les préconisations de l'OACI étaient respectées, ces habitations seraient fatalement en zone aéroportuaire A, reconnue nuisible et dangereuse pour l'être humain! Il n'en est rien, ces habitations sont en zone C. Ce PEB est une tromperie malhonnête!

Cet aéroport est une escroquerie de la population riveraine!

Pour continuer à exploiter il doit soit avoir un usage de type borgne où

expulser honnêtement la population en situation de dangerosité pour sa santé.

Le cas contraire à ces deux possibilités, l'ADERA réclame la loi qui autorise de nuire sciemment à la santé d'autrui?

La piste de l'aéroport de Tillé-Beauvais fait 2,4 kilomètres. Les préconisations de certification acoustiques des aéronefs, effectuées par l'OACI l'ont été sur des pistes de 4 kilomètres.

A Tillé-Beauvais, avec une piste beaucoup plus courte, les avions avec moins d'élan sont contraints à plus de puissance pour décoller et fatalement plus de bruit.

90% du trafic de Tillé-Beauvais est effectué par la compagnie Ryanair avec des Boeing 737-800, déjà reconnu à 83 dBs à 2 kilomètres à l'atterrissage et fatalement beaucoup plus de bruit aux décollages.

Ce point est peut-être en dehors de vos votre champ de compétence, mais sachez qu'également, l'ADERA conteste la manière d'exploiter de Ryanair qui n'acquitte pas l'ensemble de ses taxes aéroportuaires. L'ADERA considère ceci comme une concurrence déloyale et l'équivalent d'une escroquerie. la grande partie de l'entretien et des investissements de cet aéroport reviennent aux contribuables locaux qui supportent les nuisances, sans tirer de compensations financières de cette situation.

Vous avez l'accord de l'ADERA pour publier cet e-mail.

Translation by Centre de Traduction

ADERA is one of the administrators of UFCNA (National Association Against Aircraft Noise And Pollution).

ADERA can confirm that, according to information received from UFCNA, it is entirely favourable towards a broadening of the activities of the European Aviation Safety Agency (AESA), as advocated by amendment NPA 2008-15.

ADERA, within the context of your prerogatives, is keen to submit a dossier to you on the environmental problems and security problems at the aerodrome at Tillé-Beauvais (60 Oise).

In order to enable us to do this, **please provide us with your postal address** and the name of an individual to whom we may send a complex dossier, in French, which cannot be summarised in a simple email and includes documents in A3 format.

However, we can provide the following broad outline of some of the essential points of this dossier.

The airport at Tillé-Beauvais has a noise exposure plan (PEB) in place, which ADERA has been challenging before the Administrative Tribunal on justifiable grounds since its introduction in 2006. This PEB was finalised without showing consideration for the wishes of the surrounding population.

This PEB is not in accordance with the recommendation by ICAO, and **we would welcome the view of AESA.**

New take-off trajectories in a slalom pattern have recently been introduced. ADERA is contesting these dangerous trajectories which, in addition, have an impact on more of the population. These trajectories are even contrary to the recommendations of DGAC. The operator Ryanair has voted against these new trajectories in the prefectural Environmental Consultative Committee (CCE).

Moreover, a wood has been cut down against the wishes of the population.

ADERA has requested the French authorities to identify the law that permits such an arbitrary act, although no reply has ever been received.

This airport nevertheless deserves praise for having been declared a green aerodrome.

The airport at Tillé-Beauvais has the distinctive feature of being contained within an urban zone. The nearest houses in the lateral sense are 250 metres from the runway, while between 20 and 25 other houses are around 350 metres away in the axis of the runway, and between 10 and 15 others are around 1 kilometre to 1.4 kilometres distant. If the recommendations of ICAO were to be respected, these dwellings would be situated unavoidably in airport zone A, which is acknowledged as being harmful and dangerous for human beings. Notwithstanding this, these dwellings are in zone C. This PEB is a dishonest deception.

This airport is a fraud against the local population.

In order for it to continue to operate, it must either continue to be used in an underhand manner, or the population must be evicted honestly in view of the threat to their health.

Is the alternative to these two possibilities for ADERA to challenge the law which authorises the health of others to be harmed knowingly?

The airport runway at Tillé-Beauvais is 2.4 kilometres long. The recommendations for the noise certification of aircraft introduced by ICAO were conducted on runways with a length of 4 kilometres.

At Tillé-Beauvais, with its much shorter runway, aircraft that are capable of less speed are obliged to use greater power in order to take off and inevitably generate more noise.

90% of the traffic at Tillé-Beauvais is carried out by the Ryanair company using Boeing 737-800 aircraft, which are already known to produce 83 dB at a distance of 2 kilometres from landing and to generate unavoidably far more noise during take-off.

This point is perhaps outside your area of competence, but you should also be aware that ADERA is challenging the manner in which Ryanair operates by not paying all its airport taxes. ADERA regards this as unfair competition and as the equivalent of fraud. A large part of the maintenance costs and investments in this airport fall to local taxpayers, who suffer pollution without receiving any financial compensation for the situation in which they find themselves.

You have the agreement of ADERA to publish this email.

comment 894

comment by: *Cathay Pacific Airways*

Cathay Pacific Airways wishes it to be known that it opposes the proposal by EASA to amend the Basic Regulation to define broader, performance based, essential requirements for environmental protection, as well as appropriate processes to ensure compliance therewith.

It is important to note that Cathay Pacific Airways is not opposed to environmental protection per se and is, in fact, making strenuous and sincere efforts in this respect. It is however opposed to extending the role of EASA into this area as it will create duplication of effort confusion and ultimately lead to increased costs for the users at no additional benefit for the environment.

The major reason for opposition to this NPA is due to the fact that many of the proposed regulations are already covered by ICAO provisions and/or State legislation. EASA's movement into the environmental area would require, at the very least, a concurrent revocation of similar existing State regulations. However, in order to assess the viability and desirability of this it would be necessary to undertake a full impact assessment. This apparently has not been done.

The NPA tends to discuss safety and environment in the same context and purports a relationship between the two where one does not and should not exist. The lack of clarity and apparent understanding in this area gives cause for concern. Far from enhancing safety the mingling of these two disparate issues has the potential for negative safety implications.

comment 956

comment by: *AOPA-Sweden*

AOPA second the aim of EASA to improve the performance of European aviation in matter of the environment. The two most important things to mitigate is noise and emissions which means that all measures taken should take these two circumstances into account first. The formal presenting of the rules are without objections. The content raises some doubts and questions though. For instance, the rules are very general and there are not any precise and detailed regulation which makes it easier to implement but the negative side is that it is much difficult to foresee the consequences of the rules which is detriment to the security of the law for each individual. Further, this technique raises questions how the rules are to be interpreted and what we are to expected from them. Hence, AOPA has objections to some of the paragraphs due to the reason that they can unnecessarily hamper aviation. Therefore AOPA advocates rules that are more clear and specific to make them easier to follow by all individuals. Perhaps this also means that the rules have to be lesser but more efficient and concentrated to the two most important subjects mentioned above.

Further, EASA should consider whether proposed rules should be applicable to all flights, for instance if you practice start and landing for about 15 minutes. Is it really feasible to have the pilot making all proposed investigations.

One of the principles in the EU is that rules should be governed and implemented by the authorities as close to the activity as possible and guarding by the comments in the NPA this is also EASA:s view.

An important issue that is missing, is rules that govern activities that is not coherent with the law, i.e. breach of the law and other non - compliance of the regulation. Should there be criminal procedure, administrative procedures such as loss of license or others. Also, what authority should implement the consequences or administrative measures. Rules without any consequences for non - compliance tend to be very inefficient with time.

The scope of the NPA deals with just about all aspects of aviation which we feel is a bit to much for many reasons. For instance, EASA has not at present the capability and recourse to control all aviation related activities in whole Europe. Many operations are also best suited to be regulated and controlled by local authorities. Flying in northern Scandinavia is different from the central Svenska Allmänflygföreningen of Europe as well as small airports in deserted areas compared to big aerodromes in capital cities. Thus, we propose that EASA, in matter of environmental circumstances, only regulate and take

responsibility for flying activities, technical performances of aircrafts, gasoline, license and other pilot related activities. These operations cross the borders and should best be governed by a common European authority like EASA.

Consequently, EASA should not regulate activities on the ground, i.e. at airports. The main reason for this is that in most European countries, there is already a well established system of environmental law and regulations. Every airport that is to be built or reconstructed, has to apply to local environmental laws which in certain places can be more severe and pose more restrictions than EASA:s proposed rules would do, e.g. in Sweden we have the Environmental law - Miljöbalken - that regulates all activities on the ground and close to the ground. This includes starting and landing and flight operations closing in to and leaving the vicinity of airports. Another problem would be if there is more than one set of rules at an airport and more than one authority that was responsible for the implementation of the rules on each airport.

AOPA notes the writing in item 35 at page 10 and that EASA believes that application of the rules suggested, can be performed by local entities. AOPA hopes that this also will be the case in relevant matters.

The issue about the conflict between safety and environmental protection is mentioned in item 37 at page 10. Very important that this will always be the case and there should never be any doubt for a performer in aviation - Svenska Allmänflygföreningen constructor, traffic controller, pilot and others - that he can chose between a safety related matter and a measure that is better for the environment. Every time, safety comes first and it is only when he can chose between various considerations to the environment, where he should be able to make a choice at all to use the best performance for the environment.

comment 978

comment by: ACI EUROPE

The purpose of EASA Notice of Proposed Amendment No 2008-15 dated 29 May 2008 is to seek opinions on potential adaptation of the Basic Regulation (EC Regulation No 216/2008 of 20 February 2008) to encompass essential requirements for environmental protection.

Such extension in the field of activity of EASA would complement its extended scope of competence to safety of airports and ATM, which is presently being discussed in the legislative process by the European institutions. As a first step, only the provisions necessary to ensure the environmental compatibility of (aeronautical) products have been deemed necessary. An extension of the scope of the Basic Regulation to all other domains of civil aviation on environmental protection is now proposed to ensure overall consistency of the regulatory framework (total system approach). The European Commission has indicated the general view that there is a need for a proactive top down approach of the overall regulatory framework.

ACI EUROPE is of the opinion that the need of an extension of EASA rulemaking activities beyond the necessity to ensure the compatibility of products (such as aircraft and engines) shall only be considered on a case by case basis, supported by an in depth analysis of the issue at stake, while fully respecting the subsidiarity principle. As stated in the Explanatory Note (Nr. 22), the revised Basic Regulation should only cover the environmental protection aspects of airport operations and design for those subjects that are

being regulated for aviation safety by the EASA system. Even for those subjects, ACI EUROPE is of the opinion that the complexity of environmental protection aspects at airports might be better assessed by other bodies than EASA, and then properly balanced against EASA safety constraints. ACI EUROPE is concerned that environmental protection aspects of airport operations could only be partly covered.

A good example is landing and departure procedures (proposed Essential Requirements Nr. 2.c). ACI EUROPE agrees that such procedures must be designed in such a way that minimises noise and emissions to the extent possible. Having said that, it clearly appears that a full environmental impact assessment of both noise and emissions shall be duly performed, including local stakeholder consultation, in order to properly make a balance between safety and capacity constraints, noise impact and emissions resulting from each procedure. Safety requirements are of course paramount, but the global assessment of all the parameters shall probably not lay solely within EASA's scope of competence; The very first question indeed is whether a uniform piece of legislation within the EASA system could make a valuable contribution to solve the equation. As there is no straight answer to that question, there is no basis to state straightaway that EASA competence shall be extended in that respect, specifically at this moment in time.

comment

984

comment by: *MT-Propeller Entwicklung GmbH - DOA EASA 21J.020*

In principle the situation regarding the current essential requirements for environmental protection as listed in Article 6 of 216/2008 and 21A.18 work pretty well in everyday work for the majority of people and companies working in the General Aviation business. The existing regulations, restrictions and limitations in the aviation business (e.g. certification, maintenance, ground and flight operations) are often hard to fulfill and the bureaucratic and financial burden are sometimes invincible (e.g. JAR-OPS requirements) which drives especially small companies into a corner. Therefore any additional burden to the general aviation business is not supported.

Especially the scope of these new essential requirements will lead to additional restrictions, bureaucratic and financial burden, and could limit, even stop or erase general aviation business. This cannot be acceptable to anyone being involved in the aviation business neither in industry nor at EASA or at NAAs.

Keep it how it is. Sticking to ICAO rules and recommendations is essential. Article 6 should include the Appendices to Annex 16. Since Tilt Rotors, Rigid Airships or supersonic aircrafts are not available yet and these vehicles do not and will not play a major role in aviation, it should be possible to find away to create EASA environmental standards for these vehicles if ICAO does not provide any rules or recommendations.

Re-write CS-36 for instance and create an AMC which is similar to the FAA AC 36-4C but use the noise limits of ICAO. A harmonization with the USA which is the leading aviation nation in the world is required and EASA should take into consideration to adapt more US items instead of making EASA unique items which do not help to simplify the system.

Why do we always have to complicate matters?

comment 997

comment by: AEA

1. Better regulation rather than more regulation

Paragraph 54 of the NPA states that the '*intention of the legislator was that the Agency should also ensure the proper functioning and development of all areas of the aviation system that are within its competence and not just the safety aspects*'. If this were correct, AEA would question the need to amend the Basic Regulation to extend EASA's scope of competence, as proposed by NPA 2008-15.

In fact, it seems that the Basic Regulation already covers these aspects, since Article 2 stipulates that:

1. *"The principal objective of this Regulation is to establish and maintain a high uniform level of civil aviation safety in Europe.*
2. *Additional objectives are, in the fields covered by this Regulation, as follows: (...) to ensure a high uniform level of environmental protection."*

This clearly implies that environmental issues are an additional objective to be taken into account when drafting the rules or certifying equipment or aircraft. It also states that safety is the main objective.

In principle, AEA is not in favour of more regulation, but would wholeheartedly support better regulation.

2. No duplication of legislation

The involvement of EASA in environmental matters gives rise to the following concerns: would it introduce an additional regulator in this field and would it lead to an overlap and/or duplication of existing international/European/national environmental regulations?

EASA could be very effective in the area of environmental protection if it were able to rationalise the wide range of rules issued by the various regulatory bodies. However, AEA would require guarantees that any subsequent EASA rules would replace those existing measures, thereby simplifying the whole system. If this is not forthcoming, then the prospect of overlapping, potentially contradictory legislation, and the associated additional costs and more bureaucratic processes, is not something that AEA could support.

Maintaining national environmental regulations would lead to duplication, which would not be efficient. **Therefore, AEA suggests that the Essential Requirements (ER) contained in NPA 2008-15 should be limited to Aircraft and Engine manufacturers/modifiers and/or Airspace designers.**

3. No additional bureaucratic procedures

The airline industry is currently going through its toughest trading period ever, with significant financial pressures already contributing to the failure of 35 carriers this year alone. As a result, with high fuel prices contributing upwards of 30% of individual carriers' costs, there is already strong pressure to reduce fuel use, which would have associated environmental benefits. AEA believes that individual airlines have more in-depth experience of optimising operational fuel efficiency than EASA, and should retain the authority to manage their own

economic and environmental performance.

AEA notes that a number of the requirements in NPA 2008-15 are already covered by ICAO and/or (national) airport regulations and rules for obtaining an AOC. Air operators already take these regulations into account during the flight preparation phase. The proposal would therefore constitute a disproportionate regulatory burden for the airline industry. In addition, some of the suggestions in the proposal would require a considerable amount of policing to ensure compliance. This is unnecessary given that workable and effective regulation is already in place at international level.

4. No trade-off between safety and economic objectives

AEA is deeply concerned about the statement in paragraph 31 that *'trade-offs between safety and economic objectives should be made on political rather than on executive level'*. *The overriding principle has always been, and always will be, that safety cannot be compromised, for economic benefit or any other reason.*

5. Interface between EASA, Eurocontrol and EU Commission

The proposal fails to present the bigger picture. One area where EASA would be of benefit is in promoting the adoption of better airspace management within Europe, with the resulting significant environmental benefits that have already been identified. AEA is, however, mindful of potential overlaps/conflicts with the Single European Sky (SES) and SESAR initiatives.

6. Interface between EASA, ICAO and Member States

Another main concern is how EASA proposes to deal with non-EU operators, to ensure that market distortion issues are handled effectively and that EU carriers are not discriminated against in favour of their international competitors. AEA would stress the increased risk of international disputes and trade wars if EASA were to try to impose local regulations that are more stringent than ICAO standards, on the industry as a whole. There is a precedent for this in the application of the "Hush-kit" Directive in the late 1990s, which resulted in financial threats to EU carriers and application of the ICAO Article 84 process, which finally resolved the issue. This is not a situation AEA would like to see repeated as it could be severely damaging to EU carriers in the present financial climate.

7. Missing element

AEA is of the opinion that a Risk Impact Assessment (RIA) is imperative. The RIA must address whether NPA 2008-15 is beneficial to the environment and highlight the overall economic impact.

8. Serious concerns with the proposed Essential Requirements

AEA has serious concerns about the proposed Essential Requirements (ER) for environmental protection as they could result in significant costs and bureaucracy for airlines, maintenance organizations and other aviation actors, while providing questionable environmental benefits. AEA thinks that various aspects of the proposed ER could conflict with safety objectives and with the objectives of the EU Single European Sky initiative.

Furthermore, some of the terms used are extremely vague and open to

different interpretations, with tremendous potential impacts. To quote but a few:

- *Particularly harmful to environment* (ER 1g),
- *Particular unacceptable risk for, or damage to, the environment* (ER 2i),
- *Significant risk to the environment* (ER 4.a.2)
- *Significant effect on the noise exposure* (ER 5a).

Clear and unambiguous limits or standards should be indicated, for example by referring to the ICAO Annex 16 requirements. Any variations in auditing will adversely impact the level playing field. Guidance must be included.

The AEA requests the removal of any reference to maintenance personnel or organisations. It furthermore urges EASA to seriously reconsider its proposed Essential Requirements.

TITLE PAGE

p. 1

comment 103

comment by: SAS Norway

The following comments to NPA No 2008-15 is given on behalf of,
 - SAS Scandinavian Airlines Norway AS (SAS Norway) - ICAO operator code CNO, and
 - Widerøe Flyveselskap AS - ICAO operator code WIF.

SAS Norway and Widerøe already has environmental policies and guidelines in place, and is currently awaiting the release of an updated environmental electronic education program (e-learn) on environmental issues for management and employees. We are also in the process of upgrading our environmental management systems and becoming ISO 14001 certified companies - a project that is planned to take two years. Certification is planned for 2010.

As such we are positive to EASA's intent to involve itself in environmental matters.

comment 111

comment by: SAS Norway

Attachment [#7](#)

comment 293

comment by: Environmental Court Vänersborg Sweden

I've tried, without succeeding, to add comments here by copying our statement on this issue to the Swedish aviation board. I've instead sent our statement directly to the webmaster and to Marita Roth at EASA.

comment 546

comment by: ECA - European Cockpit Association

- ECA represents 38,100 European pilots and IFALPA more than 100,000 worldwide

- ECA stresses that flight safety must remain the principal objective of EASA

and that environmental protection measures must never compromise safety.

- ECA recognises the desire of European regulators to implement environmental protection measures, is however concerned that the necessity to address this problem on a global scale is not fully represented by NPA 2008-15.

- ECA strongly urges that any regulatory approach to environmental protection is fully in line with ICAO's Strategic Objectives, its SARPs as well as global decisions and recommendations, such as those emanating from ICAO's Committee on Aviation Environmental Protection (CAEP).

- ECA endorses a balanced approach in order alleviate the environmental burden of air traffic, which consists of a balanced combination of effective measures in the fields of technology, operations, restrictions, market-based measures and land-use management.

A. EXPLANATORY NOTE

p. 3

comment

472

comment by: *General Aviation Manufacturers Association (GAMA)*

GAMA welcomes the opportunity to comment on this NPA and commends EASA for its effort to take a synergistic approach to the environmental regulation of aviation. However, the text of the NPA raises some serious concerns regarding the implication throughout the paper that safety could potentially take a back seat to environmental compliance in the regulation of aviation in Europe.

A significant concern that is the central objection GAMA has to the NPA is the possibility that environmental protection considerations could be viewed as having to be taken ahead of or even equal to safety considerations. The primary purpose of an aviation regulator should be the promotion of safety. This is in fact stated explicitly, and appropriately, as the principal objective of EASA in the Basic Regulation. Although the text of the NPA alludes to this maxim in various places, the overarching impression is that environmental considerations could be allowed to trump safety. Likewise, although the NPA notes that the proposed essential requirements should be "consistent" with the ICAO framework, in fact the text conflicts with the principles of the Chicago Convention in important areas.

Another significant concern is that the NPA delves into specific design parameters as possible requirements for environmental protection. GAMA strongly supports the stated purpose of this NPA as stated in paragraph 1 that "the purpose of this NPA is to discuss and edefine how the EASA system could best contribute to the environmental compatibility of civil aivation... This could lead to amending... the Basic Regulation, to define broader, performance based, essential requirements for environmental protection..." Unfortunately, several areas within the the context of this NPA do not even consider performance based requirements and instead provide specific examples of prescriptive requirements that do not necessarily achieve the environmental objectives. The document delves into design, manufacture and maintenance of products stating that, for example, "*features of power plants intended to minimize specific fuel consumption, such as staged fuel management systems and combustor architecture which reduces cooling air requirements and residence times, must be designed in such a way to minimize trade-offs in the production of emissions species.*" Such language on the one hand simply restates what engine designers already do (consider trade offs) but also suggests that an eventual requirement might arbitrarily dictate the design parameters of engines.

The dispute in 1999-2002 over the EU's hushkit directive demonstrated that it is inappropriate to set a design standard to achieve a performance objective. That dispute also highlighted other consequences of setting a design standard: the perception by one sector of industry that the regulator has set a design standard to favor a national manufacturer over a foreign one, for example. For this and many other reasons we would strongly urge the Agency to pursue performance-based standards, not design standards.

The hushkit dispute also led directly to the establishment of ICAO's "balanced approach" to aviation noise and to the EU's Directive 2002/30, which set rules and procedures for the introduction of noise-related operating restrictions at Community airports. This highlights the importance of deferring to ICAO in the setting of environmental standards for aviation. The explanatory discussion of this NPA should recognize the significant efforts the manufacturers have made in the development of new technologies and design features of aircraft and engines which have successfully provided significant reductions in aircraft noise and emissions. However, GAMA strongly recommends that any recommendation or proposed requirement be consistent with the stated purpose of the NPA which is to define performance based essential requirements for environmental protection.

Another significant concern throughout the NPA text is a nearly total lack of definition of important terms and concepts used extensively throughout the paper, such as where it states "*the general obligation to execute the flight in an environmentally compatible manner.*" (paragraph 39 describing essential requirements). Even the proposed Essential Requirements do not provide any definition which would allow someone to assess the potential environmental benefit or economic viability of such a requirement. For example, the essential requirements for product design, manufacture and maintenance states that "Aviation products must be designed to be as quiet as possible." What is "quiet as possible"? Is there any consideration of technically feasible, economically reasonable, and level of environmental benefit? Would this be a continuously changing requirement depending upon the latest technology or theory of the day or even the perception of different individuals?

comment 771

comment by: AP AU

The Portuguese Association for Ultralight Aviation, AP AU, found that the text should be more objective in order to have a document with fewer pages, easier to be answered.

We would like to point out that the majority of the ultralight aircrafts are environmental friendly and not involved in commercial air transport. This is one of the reasons why ultralight pilots have chosen to fly these aircrafts instead of having a GA license and aircraft.

A. EXPLANATORY NOTE - I. General

p. 3

comment 21

comment by: Royal Aeronautical Society

The proposal that the EASA system should be authorised to regulate the environmental compatibility of civil aviation (Task BR.004) is supported by the Guild of Air Pilots and Air Navigators (GAPAN) by virtue of the precedent established by ICAO (that encompasses within its Annexes Environmental

Standards and Recommended Practices alongside those of safety).

GAPAN notes that all proposed rules for environmental protection in civil aviation will be subject to 'The Rulemaking Procedure' as required by Article 52(1) of the Basic Regulation.

comment 287

comment by: AEA

Attachment [#8](#)

Please see AEA comments attached.

comment 433

comment by: *Fédération Française de Planeurs Ultralégers motorisés*

Once more, FFPIUM, French federation of ULM , warn the EASA against the publication of massive documents intended for public consultation. Nothing justifies the productions of twenty six pages of texts with lots of redundancies and repetitions only to question the public on such a subject.

Those practices produce only a gost of consultation and are deliberately antidemocratic. This phenomenon was magnified by the linguistic barrier which exclude from the CRT's the vast majority of European citizen who are not English talkers.

comment 510

comment by: IFATCA

Attachment [#9](#)

comment 646

comment by: NATS

NATS believes there is still a high level debate to be had on the future of environmental regulation at European level before detailed proposals such as these are discussed. In particular the interactions between environmental regulation, airspace design and airport capacity need to be more fully understood. Also, the requirements of the SES II Performance Scheme must be taken into account in the development of other related regulatory requirements but the Performance Scheme itself has not yet been fully developed. As such this NPA is premature and priority should be given to extending the Agency's technical competence within the Safety domain with respect to ATM / ANS and Aerodromes before considering other performance areas.

comment 911

comment by: *Dassault Aviation*

in the ICAO process, EASA is only an advisor of the European Commission that is itself only an observer and consequently could not participate to the vote or other official items. This situation is a weakness in rulemakings and the European Industry -which is an observer - receives no help during the ICAO meetings from EASA(CAEP and Assembly). Nevertheless, it appears that an overseeing by in single body as EASA of both safety and environmental rulemaking would be an advantage to avoid conflicts.

A. EXPLANATORY NOTE - II. Consultation

p. 3-4

- comment 119 comment by: *Aero-Club of Switzerland*
- The Aero-Club of Switzerland regrets not having found positive aspects of flying throughout the whole document!
- Furthermore, its members think that it is unfair to attack the industry-produced UL, to proceed via airport infrastructure to the statement, that some aviation activities might probably simply no longer be possible.
- We are to a large extent unhappy with this NPA.
- Justification: It has not much in common with a democratic proceeding, much more, however, with well known dialectics of the '68ers.
- Not being environmental specialists, it was not always possible to comment your text and to propose changes. We are deeply sorry for this.
-
- comment 129 comment by: *Aero-Club of Switzerland*
- There are too many should/would/could in this document.
- Justification: If you really want to change something you have to clearly formulate what you want to have in the future. There is no room for should/would/could...
- If the Agency adopts the ICAO-meanings of "should" and "shall" we shall be happy!
- Justification: We know how to deal with these words.
-
- comment 133 comment by: *Aero-Club of Switzerland*
- To achieve a goal one has to be consequent from the beginning to the end. If the growing number of UL is of concern to the Agency or to the commission, this segment of the industry has to addressed
-
- comment 649 comment by: *NATS*
- As noted at paragraph 1, NATS considers it is still too early to have this level of detailed debate.
-
- comment 686 comment by: *Department for Transport*
- It was not transparent that an NPA on this topic was being proposed by EASA and we were surprised to receive it. Notification and dialogue with member states that this was being proposed would have helped us prepare for this NPA. We believe that the consultation document process and transparency would have benefitted from meetings of experts from member states and stakeholders.
- In the original deadline for comments, stakeholders were given 3 months to respond. We welcome the extension of that period. For NPAs of strategic importance such as this a longer consultation period is required and benefits the process and outcome. On this occasion it allowed us to bring the issue to the attention of our main stakeholders. But it would have been desirable for

EASA to have programmed this longer period especially given that the consultation took place during the main summer holiday period.

comment 912

comment by: *Dassault Aviation*

comments due date changed

A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment

p. 4

comment 158

comment by: *Aero-Club of Switzerland*

We think it would be best to forget this NPA.

Justification: The paper starts with the too many industry-produced UL and ends with a black-list of activities. This is unfair. The core-business of the Agency is the safety of aviation, not it's destruction.

Do similar papers exist for the other means of transportation? If no: Refer to sentence one of this paragraph. If yes, please check their rigidity!

**A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment
- Background**

p. 4-5

comment 22

comment by: *Royal Aeronautical Society*

The NPA does not include detailed proposals for amendment of the Basic Regulation but rather a more general discussion and related request for comments. However, it is noted that the issuance of an Opinion by EASA to the European Commission will be specific with respect to the proposed essential requirements. Comments made by GAPAN regarding air operations reflect especially the wealth of expertise the Guild possesses in this particular discipline.

GAPAN supports the view that extension of the scope of the Basic Regulation to encompass environmental protection for civil aviation should prevent a complex and unclear sharing of responsibilities between the Community and its Member States, thereby leading to a high and uniform level of aviation safety and environmental protection. However, any balance that is made between the control of noise/emission source and the operation of aircraft must never be allowed to prejudice the primacy of operational safety.

comment 51

comment by: *FRAPORT AG*

14. As the safety is paramount of all aviation activities. The prioritisation of environmental aspects could only be treated in a case by case analysis. Therefore European wide legislation can only have a guidance function.

Final decision about taking environmental aspects into account will last to the decision bodies (who sometimes are regional authorities). Most of the environmental laws are not specific aviation related, but have major impact on operation.

comment 213

comment by: *jobeckers UECNA*

First of all, the present exposure to aircraft noise and environmental pollution is much too high, and totally unacceptable. Massive efforts are required to reduce the exposure to aircraft noise and environmental pollution caused by air traffic.

Reduction of aircraft noise and other environmental pollution will also require noise-related operating restrictions to air traffic. The discussion on measures for the reduction of these environmental burdens must not exclude operating restrictions. One of the related issues is whether air traffic should be promoted, or even subsidized (e.g. discount flights) in areas, where a large number of people are heavily exposed to aircraft noise and exhaust gases.

Policies shall make sure that the air traffic is included in the global objective to reduce emissions, especially aircraft noise and its gaseous emissions. One of the measures are noise-related operating restrictions (e.g. number of flights, operating hours, restriction for certain aircraft type / model, etc.).

One of the measures to reduce the air traffic is the discontinuation of subsidies for aircraft manufacturers, airport operators, and aircraft operators. These industries shall finance their own cost. This principle has been in place for ground transportation, which is obligated to pay fuel taxes, value added tax, toll charges, and motor vehicle taxes. In order to balance the competitive market opportunities, air traffic shall be subject to the same taxes / subsidies as the competing ground traffic is exposed to.

UECNA welcomes EASA's holistic approach to reducing the negative impact of aircraft pollution, but are of the opinion the aforesaid aspects need special attention by EASA.

comment 252

comment by: *UK CAA*

Page No: 4
Paragraph No: 9
Comment:

The UK CAA does not support a broad extension of EASA's remit in the way proposed in NPA 2008-15. The UK CAA supports the most efficient, cost effective and sustainable ways of mitigating aviation's effect on the environment. However before an NPA of this kind can be considered in detail, there is a need for a wider, strategic debate about how aviation environmental issues should be addressed in the Community, and the best ways of achieving the Community's environmental objectives in aviation.

Environmental issues can be addressed either through market mechanisms (e.g. tax or emissions trading) or rules. Rules tend to be a second best solution but may be necessary where market mechanisms cannot work, examples may include the certification of new aircraft or engines or measures to ensure the consistent provision of information. An important distinction is between local and global externalities, e.g. noise and climate change emissions. Broadly, addressing local issues locally allows sensible trade-offs to be made, while global issues need to be co-ordinated at a supra-national level. This would point to EASA having a potential role in some areas, but not being involved in others such as setting noise rules around airports.

Following an initial strategic debate on how aviation environmental issues should be addressed in the Community and the potential role for EASA the UK CAA would expect to see a clear statement of the benefits of the proposals in NPA 2008-15, along with an indication of the

potential costs and who should bear these costs.**Justification:**

The first question of the NPA should be whether consultees support a comprehensive extension of EASA's scope into environmental policy formation and implementation. Within NPA 2008-15 there are a number of areas where we could support common environmental rules and we have highlighted these throughout our response. **But without this initial strategic debate the UK CAA does not support a broad extension of EASA's remit as proposed in NPA 2008-15.**

comment 253

comment by: UK CAA

Page No: 4**Paragraph No: 10****Comment:**

The paragraph states that the European Commission indicated that its original proposal was aimed at providing the European citizen with a high uniform level of safety and environmental protection, implying that these are equal objectives. The paragraph then suggests that it was only proposing the provisions necessary to ensure the airworthiness and environmental compatibility of products, because further work was needed to properly address other area of civil aviation under a total system approach, implying that such an approach was intended to embrace both safety and environmental objectives equally. We do not agree with this assumption.

Justification:

Regulation 1592/2002 was very specific in setting out at Article 2.1 that the principal objective of the Regulation was "to establish and maintain a high uniform level of civil aviation safety in Europe". Article 2.2 then lists a number of "additional objectives" including environmental protection". Moreover, the name given to the organisation clearly denotes the primacy of the safety objective.

comment 254

comment by: UK CAA

Page No: 4**Paragraph No: 11****Comment:**

The UK CAA accepts that one of the original objectives of the legislators in creating the EASA system was to contribute to enhancing the environmental compatibility of civil aviation. But CAA does not accept the assumption in paragraph 10 that this was of equal importance to the safety objectives or should be addressed in the same way. Paragraphs 11 to 14 of the NPA build on these assumptions, which then underpin all of Part A of the NPA 2008-15, culminating in the statement in paragraph 54 that "the impression" in Article 17 of the Basic Regulation "that safety was mainly driving its drafting while environmental protection only appeared as a second class objective...has to be corrected, as the intention of the legislator was that the Agency should also ensure the proper functioning and development of all areas of the aviation system that are within its competence, and not just the safety aspects".

Justification:

The UK CAA queries the assumptions in this paragraph, and indeed whether

the Agency can properly make such unequivocal statements about the intentions of the legislator. The issue of the "total system approach", which we believe has been misinterpreted, is dealt with separately in the comment addressing paragraph 14. But the key point is that Regulation 1592/2002 was very specific in setting out at Article 2.1 that the *principal* objective of the Regulation was "to establish and maintain a high uniform level of civil aviation safety in Europe". Article 2.2 then listed a number of "*additional* objectives" including environmental protection", and this has been maintained in Regulation 216/2008. Furthermore, the name given to the Agency clearly denotes the primacy of its safety objective. **The UK CAA does not consider that the Agency's safety and environmental objectives should be regarded as having equal status.**

comment 255

comment by: UK CAA

Page No: 4/5**Paragraph No: 12**

Comment: The UK CAA fully supports all aspects of European aviation safety rulemaking being centralised in EASA and note that this paragraph refers to the total system approach for aviation **safety**.

comment 256

comment by: UK CAA

Page No: 5**Paragraph No: 13****Comment:**

While there may be strong arguments to bring safety and environmental regulation together when considering for example engine and airframe certification, it does not follow that this kind of joint approach is equally applicable to areas like aerodrome licensing and aircraft operations.

Route network design has been a national responsibility albeit with coordination at a European level to ensure coherence of the network. National route design is part of national airspace design arrangements and must remain as a national responsibility, albeit within criteria that also acknowledge environmental requirements.

Justification:

The rationale for EASA's expanded remit is not clearly made and needs to be discussed from first principles.

comment 257

comment by: UK CAA

Page No: 5**Paragraph No: 14****Comment:**

The UK CAA believes that the NPA misinterprets what is meant by a "total system approach".

The UK CAA fully supports all aspects of European aviation safety rulemaking being centralised in EASA, but these environmental proposals would confer on EASA very wide responsibilities in the separate area of environmental protection. This is an area with significant cultural and 'political' sensitivities, very different from aviation safety. The UK CAA is concerned about EASA's ability to take on new environmental responsibilities with a new set of

stakeholders when the Agency is likely to only have very recently taken on responsibilities in the fields of ATM and aerodrome safety.

Justification:

The report of the High Level Group on the future European Aviation Regulatory Framework, published in July 2007, frequently referred to the term "total system approach". However, such references are in general linked to safety (for example Jacques Barrot's foreword that "EASA will be able to cover the entire aviation safety chain in a total system perspective"). They refer to regulating the safety of all domains of aviation in one organisation, not to combining safety with other objectives. Indeed, the report is at pains to stress the importance of separating responsibility for safety matters from responsibility for other objectives. In the body of the report there are separate chapters and recommendations on safety in which the extensions of EASA's scope are covered, alongside other chapters dealing with the delivery of environmental benefits in which SESAR and other initiatives are covered but no reference is made to EASA.

The High Level group report "stresses that it is important that EASA performs its current functions effectively before being given new responsibilities". We are concerned that NPA 2008-15 makes no reference to whether the EASA system is likely to be able to cope effectively with the additional rule-making and standardisation functions that would be associated with such a wide-ranging extension into environmental matters, and the challenges of operating in an unfamiliar, politically sensitive climate. The resource implications, regulatory burden and costs of implementing this proposal are potentially significant but have not been assessed. Notwithstanding the suggested use of possible synergies between safety and environmental regulation, there are likely to be additional costs to regulatory bodies and service providers. There is no mention of cost or an impact assessment.

comment

334 comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)*

The Swedish Civil Aviation Authority notes that EASA, with the suggested amendment in the NPA, is proposing to extend the scope of Regulation (EC) No 216/2008 to include almost all aspects of environmental compatibility of civil aviation. We consider it premature to discuss including this issue in the EASA system before the present and already proposed extensions of the Basic Regulation have been fully implemented. We question whether EASA would be able to have sufficient expertise and resources available in a foreseeable timespan to handle matters concerning the regulation of almost all aspects of aviation environmental protection, and there is a risk that the work with safety regulation would be affected in a negative way. Regarding environmental regulation concerning local aspects, knowledge about local needs and conditions are vital for environmental protection.

comment

335 comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)*

In general, how does EASA envisage the cooperation between the Agency and national authorities when regulating the environmental impact from civil aviation? E.g. what does EASA mean by "*due consideration will need to be given to subsidiarity so as to allow Member States adapting such rules to their local needs and peculiarities under proper Community control*".[1]

In Sweden today, the Swedish Environmental Court issues permits concerning traffic patterns and, in some cases, the conditions for use of certain approach and departure procedures and noise levels around airports. The environmental court can also introduce restrictions concerning airport activities like emissions to water and air, waste issues, use of energy and chemicals and transports at, to and from the airport. Environmental permits, and audits of how the airports are following their environmental conditions, are issued by regional authorities (County Administrative Boards) and environmental courts.

In Sweden, issuance of approvals or specific environmental permits concerning environmental impact from civil aviation are carried out in a process that is open for public consultations and public participation.

[1] Paragraphs 48 and 49 in the NPA 2008-15.

comment 336 comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)*

How does EASA plan to secure that decisions concerning local environmental impact is a process open for public participation in accordance with the Aarhus Convention?

comment 337 comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)*

Since the EASA system covers the safety regulation, does EASA see it as possible to have different authorities issuing permits or certifications for different purposes (e.g. safety and environment) of civil aviation activities?

comment 338 comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)*

Is there any room for more stringent environmental measures at national or local level than the measures that will be stipulated in the EASA system?

comment 599 comment by: *British Airways*

We would seek clarification regarding the interface and relationships between EASA, the EU Commission and Eurocontrol. The proposals by EASA could be a substantial benefit in the area of environmental protection if it were able to rationalise the significant range of regulations issued by the various regulating bodies. We would, however, need guarantees that any subsequent EASA rules would replace those existing and hence a simplification of the whole system would result. If this is not forthcoming, then the prospect of overlapping potentially contradictory legislation with associated additional costs and more bureaucratic processes is not something that we feel able to support.

comment 609 comment by: *Walter Gessky*

Item 13/14: In a total system approach, an appropriate level of protection of persons on ground, crew and passenger against environmental impact could also be taken into consideration. This can include protection against cosmic radiation, radioactive materials installed in an aircraft, ozone concentration,

Halon and other substances that deplete the ozone layer etc.
Is it intended to take all the environmental risks into consideration in the concept?

comment 616 comment by: BALPA

Para 14 - EASA will cover all aspects of civil aviation safety - it is not appropriate for the environment to form part of the remit.

comment 652 comment by: NATS

Paragraph 11: NATS wishes to stress that Safety must remain paramount.

Paragraph 12: NATS does not believe EASA should have responsibility for the regulation of interoperability (although it will have an input as regards safety implications). Again NATS wishes to stress the primacy of Safety in EASA's role.

comment 653 comment by: NATS

Paragraph 13: Traditionally it has been considered appropriate to address at the same time the safety and environmental compatibility of aviation products
This may be true in the engine/airframe world but it is not the case for ATM/ANS or aerodromes

NATS acknowledges the principle being expressed here but notes that many of these issues are firmly within National competence and in some cases extend well beyond the scope of the aviation domain.

Paragraph 14: As noted above, NATS believes it is crucial for the Agency to fully develop its technical competence in the Safety aspects of ATM/ANS and aerodromes before considering other issues.

comment 913 comment by: Dassault Aviation

Paragraph 9

Due to the importance of this NPA, the stakeholders must be consulted within Working Group meetings to elaborate the best proposals by promoting the European Aeronautic Industry with the best balancing requirements.

A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment - Scope

p. 5-6

comment 52 comment by: FRAPORT AG

17. Exactly, and therefore the regulatory framework may remain as it is.

comment 151 comment by: UFCNA

Aeronautical products- part 19

Exclusion of ultra light aircraft of Annex II is absolutely not justified due to the development of technology and they can circulate all over the community. It is

also the case for experimental ultra light aircraft because their performances are at least comparable to those of light aircraft.

comment 204

comment by: *ADVOCNAR*

Introduction:

Notre association, l'ADVOCNAR est impliquée depuis plus de 20 ans dans la protection des populations victimes des nuisances aériennes.

L'intégration transparente, effective, des contraintes d'environnement dans les programmes de développement de l'aviation civile n'est pas prioritaire jusqu'à présent pour le gouvernement français.

Un dialogue constructif entre parties prenantes reste difficile.

Pour ces raisons nous souhaitons l'intervention d'une organisation supranationale, l'EASA, à même de promouvoir auprès de chaque état de l'union, une application cohérente des aspects sécurité, opération, environnement des programmes de l'aviation civile, à même de garantir leur transparence et le respect des directives européennes

Conclusion :

Nous souhaitons l'extension du système de réglementation de l'EASA à l'environnement, afin de promouvoir auprès de chaque état de l'union, une application et une intégration cohérente des aspects sécurité, opération, environnement des programmes de l'aviation civile, à même de garantir leur transparence et le respect des directives européennes.

Ces dispositions, donnant enfin l'importance nécessaire au traitement des questions environnementales que pose le trafic aérien, doivent aussi viser à compléter la réglementation de l'OACI en préservant la compatibilité des opérations des états membres avec les pays extra communautaires.

Alain Peri, Vice Président d' ADVOCNAR

Translation by Centre de Traduction

Introduction:

Our association, ADVOCNAR (Association for Defence against Aircraft Pollution), has been involved for more than 20 years in the protection of populations that are victims of aircraft noise and pollution. The transparent and effective integration of environmental constraints into the programmes for the development of civil aviation has not been a priority until now for the French government. A constructive dialogue between the parties concerned remains difficult.

It is for these reasons that we wish to secure the intervention of a supranational organisation, EASA (European Aviation Safety Agency), in order to promote a coherent application of the security-related, operational and environmental aspects of the civil aviation programmes in each Member State of the Union, with a view to guaranteeing their transparency and compliance with European directives.

Conclusion:

We wish to see the extension of the EASA system of regulation to include the environment, in order to promote the application and the coherent integration of the security-related, operational and environmental aspects of the civil aviation programmes in each Member State of the Union, in order to guarantee their transparency and compliance with European directives. These

arrangements, which finally give the necessary importance to the handling of environmental questions posed by air traffic, must also aim to supplement the regulations of the ICAO (International Civil Aviation Organization) by preserving the compatibility of the operations of Member States with non-EU countries.

Alain Peri, Vice President of ADVOCNAR

comment

258

comment by: UK CAA

Page No: 6
Paragraph No: 17
Comment:

The UK CAA would welcome a strategic discussion at Community level on the best way of meeting Community environmental objectives in the field of aviation but does not consider that at this stage NPA 2008-15 provides the basis for such a debate. Whilst recognising that EASA has a role to play in ensuring the environmental compatibility of aviation, and that there may be some additions to this role which would be beneficial and justifiable, there should be no presumption of the kind made in the NPA that the EASA system should assume such a major role in meeting environmental objectives.

Justification:

The UK CAA accepts that there is a 'patchwork of regulations' and within the current framework there is the risk of gaps and overlaps. However the priority for EASA is to focus on its fundamental safety objectives, including the extensions of its scope into new domains either already agreed by Parliament and Council or currently under discussion.

It is not clear what aspects of environmental protection measures would be excluded from EASA's responsibilities.

comment

347

comment by: Light Aircraft Association

Page 6 Paragraph 16

"Land use planning is indirectly addressed by Directive 2002/49/EC on environmental noise, which takes into account all sources of noise around aerodromes."

1) the definition of an aerodrome in the UK is:-

Any area of land or water designed, equipped, set apart or commonly used for affording facilities for the landing and departure of aircraft and includes any area or space, whether on the ground, on the roof of a building or elsewhere, which is designed, equipped or set apart for affording facilities for the landing and departure of aircraft capable of descending or climbing vertically.

As this describes any area of land from farm strips, open fields, water, roofs of buildings, etc we believe the definition in paragraph 16 to be incorrect.

Directive 2002/49/EC does not use the generic word "aerodromes" but uses the word "airports" and further describes these as:-

"shall mean a civil airport, designated by the Member State, which has more than 50 000 movements per year (a movement being a take-off or a landing), excluding those purely for training purposes on light aircraft;"

The definition even alludes to the exclusion of light aircraft.

We therefore submit that the NPA 2008-15 should focus on Airports and Commercial Air Transport and not light aviation. Further, it is impractical to include vintage and historic aircraft in any future definitions.

comment 380

comment by: *International Air Transport Association (IATA)*

GENERAL COMMENTS

Our general comments are as follows:

- **Over-regulation**

Fundamentally, IATA maintains that the setting of standards and recommended practices is the fundamental function of ICAO and this should be preserved so as to ensure worldwide consistency of aviation rules. If EASA were able to contribute to the harmonised implementation of ICAO SARP's, then we would strongly support its function in this area, but we could not condone any move to set up specific European standards.

Many regulations set forth in NPA 2008-15 are already covered by ICAO and/or national authorities. EASA involvement in environmental matters would effectively create an additional regulator in this area and could well lead to either duplication of existing rules or the establishment of new but unnecessary rules. This would clearly be ineffective and unwelcome.

Moreover, introduction of any supra-national regulation should only occur with a simultaneous renunciation of relevant national regulations. This has for example happened with EASA safety regulations, which have superseded national safety regulations. Unless there is a guarantee that new EASA rules would replace existing rules and simplify processes and procedures, there seems no justifiable reason to extend EASA's mandate. The bottom line is that we need better regulation, not more regulation.

- **Conflicting regulation**

In the same vein, it is unclear what the functional and jurisdictional interface looks like between EASA, the European Commission and Eurocontrol (or, for that matter, between EASA, ICAO and Member States). Centralised regulation should only be used where necessary and must be in line with ICAO rules.

As a general principle, IATA is opposed to unilateral, local or regional standards. Global consistency of aviation rules is of paramount importance and ICAO's international standard setting role must be preserved. IATA could support EASA contribution to a harmonised implementation of ICAO standards, but it would be opposed to EASA creating a framework for setting European standards.

Last but not least, it is not clear how EASA would ensure a proper balance between environmental interests and, most importantly, between safety and environment priorities. Essential Requirements for environmental protection should under no circumstances compromise flight safety.

- **Costly regulation**

IATA has the distinct impression that the current EASA proposal would put a

disproportionate amount of additional regulatory and administrative burden upon the aviation industry. Many of the suggestions set out in the proposal would require significant amounts of administration and policing to ensure compliance. Already faced with very complex and demanding monitoring, reporting and verification requirements in the coming years, many airlines will not be able to cope with ever-increasing and costly compliance requirements.

In addition, IATA is of the view that the EASA proposal should be accompanied by a Regulatory Impact Assessment (RIA) in order to determine environmental and economic costs and benefits. The airline industry is currently going through its roughest period ever, with massive financial pressures already contributing to the failure of 35 carriers this year alone. The aviation industry is facing its largest drop in passengers since the outbreak of Severe Acute Respiratory Syndrome (SARS) in 2003. The last thing airlines need right now is more costly regulations.

comment 914

comment by: *Dassault Aviation*

no comments except that this text is referred to Chapter 3 of Volume I of Annex 16 second edition (1988) whilst the certificated aircraft are today in compliance with Chapter 4 defined in the 4th Edition, Amendt 1 : the §17 emphases an unique regulation which, we hope so, will be more coherent

**A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment
- Scope - Aeronautical products**

p. 6-7

comment 120

comment by: *Aero-Club of Switzerland*

Mr. Claude Probst said something else on March 15/2008 at the Cologne Meeting of Europe Air Sports. He clearly spoke of "the anachronism of the Annex II idea". It will not be the right approach to leave the "Annex II" aircraft under national law and to take the UL under the EASA wings.

We need a more precise definition of "Commercial Air Transport". Looking at EC 216/2008, art. 3, letter (i), dealing with "Commercial Operations". Does really anyone think UL will ever be involved in "Commercial Air Transport"?

comment 150

comment by: *UFCNA*

Aeronautical products -part 19:

Exclusion of ultra light aircraft of Annex I is absolutely not justified. Their performances are at least comparable to those of certain lightaircraft due to the development of tecnology; furthrmore they can circulate all over tne community. It is also the case of experimental ultra light aircraft which can have similar performances.

comment 164

comment by: *KLM Engineering & Maintenance*

A.IV.18. The assumption that "all aircraft are already subject to common environmental rules ... implies that these rules also apply to organizations and personnel", is self serving and unfounded and can therefore not be a foundation for this NPA.

- comment 259 comment by: UK CAA
- Page No: 6**
Paragraph No: 19
Comment:
- We do not agree with the statement that some of these ultra light aircraft already pose serious environmental concerns.
- Justification:**
- Most of these ultra light aircraft being produced today use the Rotax 900 series of engines which are quiet, have silencers, and are economical, with fuel burns between 10 litres and 20 litres an hour.
-
- comment 299 comment by: Luftfahrt-Bundesamt
- 18.
- Not 'all aircraft' are covered by environmental requirements. According to EASA's today's understanding, a lot of categories benefit from exemptions although they contribute to environmental burden. Therefore we demand the implementation of requirements e.g. for self-sustaining powered sailplanes, airships, 'old' aircraft and helicopter type-certificated before the implementation of Annex 16. It is expected that EASA is going to develop additional European regulations for embedding these categories in its environmental protection requirements.
-
- comment 300 comment by: Luftfahrt-Bundesamt
- 20.
- Which certification requirements and procedures with respect to the General Aviation need to be better adapted? In the field of environmental protection the certification requirement is Annex 16. Does EASA plan to use other environmental protection requirements? Which?
-
- comment 349 comment by: AIRBUS
- § 17**
- ICAO CAEP is the framework where efforts should be made.
The paragraph 17 reads:
"[...] This is why Vice-President Jacques Barrot emphasised in the conclusions of the Conference on the Future of Aviation Regulation the need for a more coherent, pro-active top down approach rather than the continuation of case-by-case legislative reactions. The EASA system could provide for such an approach, it is, however, unlikely that such a system is appropriate for all aspects of aviation related environmental protection. [...]"
- The ICAO CAEP has so far demonstrated that it was the best framework for the development of environmental recommendations. The reasons why this option is not retained are not explained in the NPA.
-
- comment 350 comment by: AIRBUS
- § 18 & 19**
- The paragraph 18 reads:
"Under the Basic Regulation, all aircraft are already subject to common environmental rules, except those defined in its Annex II; this implies that

organisations and personnel involved in the design, manufacture and maintenance of these aircraft are also subject to common rules as appropriate. No changes are considered here."

This paragraph, in conjunction with paragraph 19, focused on the extension of environmental protection requirements to ultralight industrially manufactured, leads interested parties to conclude that aircraft already subject to ICAO Annex 16 are excluded from the scope of the NPA. This is in contradiction with the content of the NPA and with the regulatory proposals that are supposed to affect also "*Product design, manufacture and maintenance*" without distinction in the product range.

comment 403

comment by: *Light Aircraft Association*

Paragraph 18

Current regulations encompass aircraft in Annex II (Part 21A.18) by utilising ICAO Annex 16 vol 1 for noise, which includes various dBA limits for different powerplant based aircraft of different ages, and volume 2 for emissions, which deals solely with turbo-fan / turbo-jet aircraft. No change is therefore necessary.

Paragraph 19

Annex 2 aircraft and ultra-light aircraft, "produced in an industrial manner". The statement that "It is a fact also that some of these aircraft already pose serious environmental concerns." Is not backed by any information to justify this claim! We would go further to say that the latest machines are more environmentally capable than many other flying machines being both quieter and more fuel efficient. Furthermore it could be argued that these aircraft are better positioned to take advantage of emerging technologies due to them currently enjoying a lighter regulatory regime.

The statement that "They (EASA) also decided to immediately submit some of these aircraft to common rules when involved in commercial air transport" is also not supported by any information. It is debateable whether any of these ultra-light machines could be used for the recognised business of "commercial air transport" and the submission is therefore excessive.

Response from the Vintage Aircraft Club

Paragraph 19

Within Annex II there are also many historic and vintage aircraft, some of which are ultra-light aircraft and were produced in an industrial manner and have "circulated all over the community" for many years. Any attempts to regulate on environmental grounds the engineering of these historic aircraft would effectively ground them and will be resisted. Other historic Annex II aircraft cannot be retrofitted with modern environmental equipment and suitable derogations will be required to ensure the continued operation of these aircraft.

comment 423

comment by: *Fédération Française de Planeurs Ultralégers motorisés*

French microlights which are included in the Annex II have already demonstrated a noise levels vastly lower than those measured in general aviation. In less than fifteen years they had been able to decrease their noise level from more than 10 dBA as the FFPIUM demonstrate by organising sound level competition during the nineties. Now, thank to the freedom accorded to the designers by a very simple airworthiness system all the microlights vastly

outperform the general aviation in this matter.

Concerning the pollution level, even the less aerodynamic efficient microlights burn less than nine liters by hours and by seat. Compared to the best efficient airliner recently put in operation the Airbus A 380 which consume 12 l/h/s it is still 25% more pollutant !

From those reasons and to facilitate future environmental improvement of this type of aircraft, FFPIUM is of the opinion that microlight must be left outside the scope of EASA also in the environment matters.

comment 471

comment by: *Fridrich Jan*

Point 19.

I see fundamental discrepancy between statement ... however, this may not be the case... stated in this NPA , while in NPA 2008-07 in RIA the statement about the safety for the same aircraft is opposite - see V.RIA 4.Impact i) Safety ... A qualitative comparison of safety records of the regulated sector and the less regulated sectors indicates that there are no significant differences in the statistical safety records. Objective statistical evidence may not support the qualitative comparison but such evidence is often difficult to obtain given the nature of the activity. On the available evidence, the heavier regulation of the regulated sector does not appear to have resulted in any safety benefit. Similar statement was also in A-NPA 14

I think that EASA should stay consistent with named NPAs, because they reflect current situation in light aviation.

These light aircraft are already recognized as environmentally friendly aircraft in many aspects - silent, low fuel consumption, unleaded fuel, modern engine technologies etc.

comment 521

comment by: *Deutscher Aero Club e.V. (DAeC)*

19.

No additional regulations are needed in Germany.

Justification:

No such concerns about Ultralight Aircraft exist in Germany, because German Ultralight Aircraft are covered by airworthiness requirements LTF-UL 2003 (mostly according to CS-VLA) and environmental requirements LVL 2004. In contrary, in Germany Ultralight Aircraft are recognized as environmental friendly aircraft (silent, low fuel consumption, unleaded fuel, modern engine technologies).

Remark:

Neither the term ultralight aircraft nor the term produced in a industrial manner is defined by the NPA or by other relevant EU-regulation.

comment 618

comment by: *BALPA*

Para 19 - Ultralight aircraft are becoming increasingly attractive over conventional light aircraft, are relatively unregulated and do need to be

covered. BALPA does not consider that it is appropriate that they be covered under this regulation. An addendum to existing regulation should cover design criteria, noise, emissions etc subjecting them to common standards.

comment 731 comment by: *General Aviation Manufacturers Association (GAMA)*

GAMA strongly agrees with EASA's statement that "all aircraft are already subject to common environmental rules, except those defined in its Annex II... No changes are considered here." However, the proposed essential requirements for product design are completely inconsistent with this statement as it would establish many new requirements which significantly change the requirements by which manufacturers must design aircraft despite the fact that these aircraft are already subject to common performance based environmental rules.

In paragraph 19, EASA must provide appropriate contextual information or reference documentation whenever making a condemning statement such as "It is a fact also that some of these [ultralight] aircraft already pose serious environmental concerns." Otherwise, such a statement from an Authority is completely inappropriate and misleading the public.

comment 740 comment by: *Rolls-Royce plc [DGJ]*

Regarding paragraph 18, Rolls-Royce agrees that the Agency's assessment of engine and aircraft designs against established ICAO standards during Certification programmes is an efficient mechanism which we fully support.

comment 751 comment by: *European Microlight Federation*

How can what purports to be an authoritative consultation document contain the phrase "...*this may not be the case*"? Either it is or it is not. In fact, it most certainly is the case microlights do not raise important safety concerns for the community. If the author believes otherwise he should state what these concerns are and justify his position. A good starting point would be to define what constitutes "*an important safety concern*" particularly when compared, for example, with road traffic or even equestrian accidents.

As for "*with the development of technology*", if modern technology has had any impact on safety it has been to increase it. Both the UK CAA and the French DGAC have produced statistics which demonstrate that the level of fatal accidents in lightly regulated microlights are directly comparable with those of other more highly regulated areas of sports and recreational aviation. Thus there is no proven link between increased regulation, European or otherwise, and safety in sports and recreational aviation. In any event, what is the relevance of this statement to an NPA on environmental issues unless the author believes that the unsafe microlights are causing an environmental hazard, which is self-evidently not the case?

As for the outrageous assertion that some of these microlights with improved performance "*already pose serious environmental concerns*", the author must justify or retract this statement. One thing modern technology has most certainly done is to reduce the environmental impact of microlights. Modern microlights are quieter and more fuel efficient. With regard to noise pollution, modern microlight propellers and powerplants make microlights some of the

quietest or all powered aircraft. As far as fuel-based environmental issues are concerned, modern microlight engines are designed to be fuel-efficient and to use the same fuel as petrol-powered road vehicles, in comparison with which their environmental impact is insignificant. An important factor in the continuing reduction in environmental impact has been the light regulation which has allowed easy and rapid development.

While it seems irrelevant to this NPA, since the author has seen fit to repeat the suggestion that some microlights "*might be better regulated at Community level to provide for the necessary uniform level of safety and environmental protection*" the EMF takes this opportunity to repeat its belief that this most certainly is not the case. Moreover it is time that the vague phrase "*produced in an industrial manner, whose performances are increasing and which circulate all over the community*" was explained so that the members of the EMF and the manufacturers of microlights had a better idea of the basis on which EASA is considering deciding which microlights it wanted to bring under European control and why.

comment 754

comment by: Europe Air Sports PM

Point 19.

We see discrepancy between statement ... however, this may not be the case... stated in this NPA , while in NPA 2008-07 in RIA the statement about the safety for the same aircraft is opposite - see V.RIA 4.Impact i) Safety ... A qualitative comparison of safety records of the regulated sector and the less regulated sectors indicates that there are no significant differences in the statistical safety records. Objective statistical evidence may not support the qualitative comparison but such evidence is often difficult to obtain given the nature of the activity. On the available evidence, the heavier regulation of the regulated sector does not appear to have resulted in any safety benefit. Similar statement was also in A-NPA 14

We think that EASA should stay consistent with named NPAs, because they and reflect current situation in light aviation.

These light aircraft are already recognized as environmentally friendly aircraft in many aspects - silent, low fuel consumption, unleaded fuel, modern engine technologies etc.

comment 761

comment by: Light Aircraft Association of the Czech Republic

Point 19.

We see fundamental discrepancy between statement ... however, this may not be the case... stated in this NPA , while in NPA 2008-07 in RIA the statement about the safety for the same aircraft is opposite - see V.RIA 4.Impact i) Safety ... A qualitative comparison of safety records of the regulated sector and the less regulated sectors indicates that there are no significant differences in the statistical safety records. Objective statistical evidence may not support the qualitative comparison but such evidence is often difficult to obtain given the nature of the activity. On the available evidence, the heavier regulation of the regulated sector does not appear to have resulted in any safety benefit. Similar statement was also in A-NPA 14

We think that EASA should stay consistent with named NPAs, because they reflect current situation in light aviation.

These light aircraft are already recognized as environmentally friendly aircraft in many aspects - silent, low fuel consumption, unleaded fuel, modern engine technologies etc.

comment 778

comment by: APAU

Microlights flying in Portugal produce lower levels of noise than those measured in GA.

As to: pollution level; even the less aerodynamic efficient microlights burns less than nine liters per hour and per seat.

Due to these reasons and to help future environmental improvement of this type of aircraft, it is APAU's opinion that microlights should not be leveled in any matter with GA for we have demonstrated to be very different from GA in all performing aspects. This is the major reason why microlights should be kept in Annex II and not be mixed with GA.

comment 850

comment by: EUROPEAN REGIONS AIRLINE ASSOCIATION

Paragraph 18

The statement in paragraph 18 statement is unfounded. ERA challenges the statement on the basis that not all organisations and personnel involved in the design, manufacture and maintenance of these aircraft are also subject to common rules as appropriate. This cannot be used as the basis for an NPA.

comment 895

comment by: Cathay Pacific Airways

These statements confuse and inappropriately link safety and environmental performance. These issues are not linked and doing so could in fact have an adverse impact on safety. Clarity is required in this area.

comment 915

comment by: Dassault Aviation

Paragraph 20

General Aviation includes also the business aircraft that are relevant of CS25 and Chapter 4 of CS36. EASA needs to precise the aircraftType which is relevant of a Environmental special rules

comment 998

comment by: AEA

Paragraph 18

The assumption that '*all aircraft are already subject to common environmental rules; this implies that organizations and personnel are also subject to common rules as appropriate*', is self-serving and unfounded and can therefore not constitute a basis for this NPA.

comment	5	comment by: <i>KLM</i>
	<p>Answer No, the manufacturer of these vehicles has to comply to the rules to protect the environment. The existing ula shall have a transition period to comply, but with realistic requirements.</p>	
comment	23	comment by: <i>Royal Aeronautical Society</i>
	<p>Q1: It would not be sensible to establish arbitrarily two new categories of ultra light aircraft - (1) those produced in an industrial manner and (2) those that are not, where each may become subject to different sets of rules - since when addressing compliance this has the potential to create uncertainty both in the minds of those regulated by EASA as well as in the minds of those tasked with applying regulatory oversight.</p> <p>Rather, rules developed specifically to address the safety and environmental characteristics of ultra light aircraft should be applied only if <u>all</u> such aircraft are removed from Annex II. If the Commission is not persuaded that this should be done, then EASA should work with representatives of ultra light aircraft manufacturers, owners, operators and maintenance organisations to develop and promote 'best practice' guides relating to safety and environmental protection for application specifically to this class of aircraft.</p>	
comment	46	comment by: <i>Samuel WENGER</i>
	<p>I agree that the existing environmental certification rules (CS 34, 36) are appropriate. Through the step by step efforts of ICAO, a change of aircraft design philosophy has taken place from 'what is feasible is good for aviation' to 'aircraft (operations) must be acceptable to society'.</p> <p>Question 1: I agree that ultra light aircraft should also be subject to common environmental rules, although I believe that their annoyance potential is more operational than technical. The main benefit of environmental certification of that aircraft category is public acceptability.</p>	
comment	53	comment by: <i>FRAPORT AG</i>
	<p>Generally NO. The total number of these a/c types is minor, the administrative overhead is not related to the results, environmental standards are checked during the certification process.</p>	
comment	87	comment by: <i>Lars Hjelmberg</i>
	<p>Ultralight aircraft should not be subject to common environmental rules -- their volume is too small and impact on environment minimal - compared to cattle activities for example.</p>	
comment	105	comment by: <i>SAS Norway</i>
	<p>For ultra light aircraft when defined as aircraft with maximum take-off weight below the EU OPS-1 definition for microlight - we are generally in favor of this, especially in the area of noise.</p>	

For the new group of very light jets (VLJ) we view it as a definite requirement that this type of aircraft is subject to common rules also when the environment is concerned. The performance of these aircraft is such that they can be a very disruptive element in air traffic management unless subject to common rules. For example can continuous descent approaches (CDA) from cruise altitude, or so-called *green approaches*, be disrupted by VLJ aircraft unless handled in an orderly manner.

comment 135

comment by: EHPU

The term 'Ultralight aircraft' is not defined. Nor is the term 'Industrial Manner'. So the question can mean anything or nothing. For the record, we believe very strongly that there is no need to impose any further rules on hang gliders and/or paragliders. Economic conditions already mean that manufacturers are struggling to survive. We have no opinion on whether 'ultralight aircraft produced in an industrial manner' should be subject to common environmental rules other than that any such rules must clearly state that there are no environmental rules applicable to any aircraft below 115kg empty mass without pilot and fuel nor to any aircraft that are unpowered.

comment 141

comment by: British Gliding Association

The statement "It is a fact also that some of these aircraft (Annex II and 'ultralight aircraft, produced in an industrial manner') already pose serious environmental concerns" is not justified within the text. On what basis is this statement made?

It is likely that Commercial Air Transport would benefit from environmental regulation through an aviation regulator rather than any other agency. However, air sport presents a very low environmental impact. In addition, any additional regulation presents a significant economic challenge to an industry that is struggling under the load of EASA driven regulatory change and an increasingly challenging macro economic environment.

Whether currently Annex 2 or otherwise, any product that is in future subject to EASA environmental regulation should be regulated proportionally.

comment 152

comment by: UFCNA

Question 1

UFCNA (federation of resident's association in France) agrees that ultra light produced in an industrial manner shall be subject to common environmental rules. Furthermore experimental ultra light aircraft shall also be subject to common environmental rules, they must enter into the domain of competence of EASA, Basic Regulation has to be revised accordingly.

comment 155

comment by: Aero-Club of Switzerland

Our answer is "no".

Justification: UL produced in an industrial manner are not to be subject to common environmental rules as long as there exist the so-called "Annex II" aircraft list. If there exist problems in certain areas, their existence has nothing

to do with the production of the UL, very much however with air operations. Consequently, the correct questions to be asked should deal with the "Licensing" activities of the Agency and with the airspace structure of the Member States.

comment 205

comment by: *BDF - German Airline Association*

Yes, we agree that ultra light aircrafts should also be included in the common environmental rules. More and more ultra light aircrafts maneuver in the skies. If these aren't included, this would generate a disadvantage in the competition between the different means of air transport.

The question arises, why only ultra light aircrafts which are produced in an industrial manner should be included and not all.

comment 215

comment by: *jobeckers UECNA*

UECNA appreciates that EASA has become responsible for issues regarding environmental pollution.

There is no procedure in place, which allows to establish an independent control system. This is the reason why considerations of environmental protection are frequently ignored by the airline / air traffic industry.

The protection of people, who are exposed to aircraft noise, is insufficient. Procedures for the approval of new airports or the expansion of airport operations do not include the accumulated noise exposure from different noise sources. In general only the aircraft noise levels are considered, and the existing noise exposure is neglected.

Health risks from noise do not differentiate the source. It is the accumulative noise level, which counts. It is imperative to include the traffic noise, noise from industrial plants, and the aircraft noise into the noise exposure maps / expertises, which are used for airport planning.

The charted aircraft noise maps shall be verified by noise measurement stations in populated areas, which are exposed to aircraft noise. If discrepancies from the surveys are found, the noise charts shall be updated. If necessary, noise reduction measures shall be implemented to ensure acceptable noise levels.

The ultra light airplanes shall be included in the common environmental rules. The emissions from ultra light airplanes have significantly increased over the past years. This trend is expected to continue. The same applies to very light aircraft.

It is imperative that people are protected against the exposure of unacceptable noise and exhaust emissions. Noise-related operating restrictions must not be excluded from the measures to limit / reduce emissions from aircraft. The regulation of the technical figures alone, is not sufficient.

comment 260

comment by: *UK CAA***Page No: 7****Paragraph No: Question 1****Comment:**

The UK CAA does not agree that ultra light aircraft (microlights produced in an industrial manner) should be subject to common environmental rules.

Justification:

While ultra light aircraft (microlights) remain in Annex II of the basic regulation, the practical difficulties of subjecting them to common environmental rules greatly exceed the potential benefits. The fact that these aircraft are regulated for both airworthiness and noise in some Member States and de-regulated in others will be a significant obstacle to implementing common standards. If common rules are introduced, many thousands of existing aircraft will almost certainly be non-compliant. They will then face the choice of incurring the cost of modification or being grounded.

- comment 288 comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*
- We would be in favour of a harmonized European solution for industrially produced ultra light aircraft. Swiss Ecolight-Aircraft (ultralight with additional requirements) have to comply with a noise standard of 65 dB(A) based on a measurement according to ICAO Annex 16, Vol. 1 Chapter 10.
- comment 329 comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)*
- We are not generally against common environmental rules for ultra light aircraft, but we consider that the environmental issues should not be handled separately. We recommend that there should be a joint process for common type certification rules and european emissions and noise certification rules.
- comment 339 comment by: *BMVBS, DE*
- The German Ministry of Transport, Building and Urban Affairs (BMVBS) is of the opinion that it is not a question of whether an aircraft is produced in a particular 'industrial manner' in order to be subject to common environmental rules. As long as the ultra light aircraft under consideration fall within the scope of Annex II, Member States are in charge of setting up the appropriate environmental certification requirements, no matter what production method was applied to that type of aircraft.
- comment 345 comment by: *Fridrich Jan*
- I think that ALL ultralights should stay in AnnexII therefore the environmental issues should not be regulated on community level.
- However because it is not defined what it means "ultralights produced in an industrial manner " it is necessary to define ultralight aircraft clases and types which are foreseen to be incorporated.
- These ultralight aircraft are already recognized as environmentally friendly aircraft in many aspects - silent, low fuel consumption, unleaded fuel, modern engine technologies etc.
- comment 346 comment by: *Light Aircraft Association of the Czech Republic*
- No we think that all ultralights should stay in AnnexII therefore the environmental issues should not be regulated on community level.

However because it is not defined what it means "ultralights produced in an industrial manner " it is necessary to define ultralight aircraft classes and types which are foreseen to be incorporated.

These ultralight aircraft are already recognized as environmentally friendly aircraft in many aspects - silent, low fuel consumption, unleaded fuel, modern engine technologies etc.

comment 348

comment by: *Europe Air Sports PM*

We think that the ultralights produced in an industrial manner should stay in AnnexII therefore the environmental issues should not be regulated on community level. However because it is not defined what it means "ultralights produced in an industrial manner " it is necessary to define ultralight aircraft classes and types which are foreseen to be incorporated.

These ultralight aircraft are already recognized as environmentally friendly aircraft in many aspects - silent, low fuel consumption, unleaded fuel, modern engine technologies etc.

comment 381

comment by: *International Air Transport Association (IATA)*

SPECIFIC COMMENTS

In addition, and notwithstanding the above, IATA would like to submit the following comments to the specific questions posed in the consultation paper.

Question 1: *The Agency is interested in knowing whether stakeholders agree that ultra light aircraft, produced in an industrial manner, should be subject to common environmental rules?*

- IATA airlines don't operate ultra light aircraft and therefore IATA has no particular view on whether such aircraft should be subject to common environmental rules. However, in its deliberations, we would urge EASA to strike a proper balance between environmental impact from ultra light aircraft that the Agency would seek to limit and the financial and administrative burden that this would entail for the aviation system as a whole.

comment 395

comment by: *General Aviation Awareness Council, UK*

We question the premise, stated in paragraph 19, "It is a fact also that some of these aircraft [Annex II and 'ultralight aircraft, produced in an industrial manner'] already pose serious environmental concerns."

We are not aware of such concerns, do not agree with your statement and so do not accept that they justify any legislative action beyond that which already applies, and do not support EASA action or enabling legislation for such EASA action.

comment 404

comment by: *Light Aircraft Association*

Answer to Question 1

The question is too overarching in its definition. The simple answer is no!

Without some idea of the extent of the question it is impractical to answer. If the common environmental rules were such that they stifled future developments they would be detrimental to the advancement of light aviation. As most "ultra-light" aircraft are single or two seat, the suggestion that they may be used for "Commercial Air Transport" is very unlikely. As to these aircraft "circulating all over the community", this is how GA aircraft should be allowed to fly with the minimum of regulatory limitations or hindrance. It is assumed here that the word "community" means the EC and not the conurbations aircraft fly over or around.

Any ruling must not be retrospective to current or earlier designs.

In the light of the new categories being evolved by the Agency, the term "ultra-light" aircraft is also potentially to be phased out.

It is far better for the free market to produce quieter and more efficient machines without the constraints of regulation. Regulation could limit the further development of better aircraft as the designers would work to just the stated rules and not improve upon them. If the plan were to redefine the rules on a yearly basis then manufacturers would find it uneconomic to develop new aircraft, stifling businesses.

Response from the Vintage Aircraft Club

This question covers too wide a range of machines from the earliest production ultra-light aircraft such as the Aeronca C3 through to the latest carbon fibre constructed aircraft and cannot therefore be answered.

There is no practical way that a modern silencer or environmental emission controls could be fitted to historic aircraft without either exceeding their weight capabilities or, more importantly, destroying their historic importance.

Attempts to write a common rule which could encompass the construction techniques of the 1920's all the way through to the latest composite types is impractical and should be resisted.

comment 473

comment by: *General Aviation Manufacturers Association (GAMA)*

As stated in the comment to paragraph 19, it is inappropriate and misleading to ask whether ultralight aircraft should be subject to environmental rules without first determining whether these vehicles impose an unacceptable environmental impact on the community and whether regulation is the best approach to addressing this potential issue. Under the Basic Regulation, it was determined that ultralight aircraft did not raise important concerns for the Community.

GAMA does NOT agree that ultralight aircraft should be subject to common environmental rules. First, EASA has not provided any information as to the proposed environmental impact caused by these aircraft. Second, are there technically feasible and economically reasonable standards that could be imposed by regulation upon ultralight aircraft which would provide any environmental benefit? Third, the ultralight sector is a small part of the general aviation sector, which itself is a very small part of the overall aviation sector in the EU. Therefore, the cost and administrative burden on the operators and manufacturers of ultralight aircraft as well as on the regulator of including this segment of the aviation community strikes us as potentially yielding microscopically small environmental benefit at a disproportionately large

burden that could threaten its very existence. As a matter of proportionality, GAMA does NOT agree that the ultralight sector be subject to any potential environmental rules.

In addition, it is not clearly defined in the NPA what is meant by "produced in an industrial manner."

comment 489 comment by: *Air Transport Association of America, Inc. (ATA)*

The consultation document does not describe the nature of the supposed environmental problems emerging with ultra-light aircraft - noise, emissions from engines that are presumably too small to be covered by ICAO standards? If there are going to be engine standards or recommended practices relating to emissions for any type of aircraft, ICAO should be responsible for developing them in order to ensure continued global harmonization in aviation. Noise issues from any type of aircraft can be addressed under the ICAO Balanced Approach to Noise.

comment 517 comment by: *AESA*

No, there are no environmental problems with ultra light aircrafts and in the document is not well explained why this action could be interesting for the Agency or for the Stakeholders.

comment 522 comment by: *Royal Danish Aeroclub*

Answer to Question 1:

Royal Danish Aeroclub represents approx. 8.000 members and approx. 1.100 planes. This includes gliders, motorgliders, microlight aircraft, powered aircrafts (1-6 seats), balloons and model airplanes.

Small planes do only fly few hours per year. Many planes less than 100 hours per year. Only very few more than 1.000 hours per year. The real environmental effect by regulating this group of vehicles will only have a minor effect on the total environmental load. If we compare to road based traffic and the number of privat cars in Denmark the number of powered aircrafts with 1-6 seats are less 0,07% of the number of cars. Many of the cars drive every day and many of the aircrafts do only fly in nice weather.

The EU-regulators should primaraly concentrate the effort on the areas where the effects are the most.

But we do support the idea, that aeronautical activities are regulated when it comes to environmental protection. Therefore we do support that new constructions of engines coming in the future follow guidelines or regulations concerning pollution and noise.

Existing planes, which are allowed to fly legally today in a EU-country should keep that right, also in the future.

It is our opinion that existing and future Annex II aircrafts (microlights and vintage) should not be regulated by new environmental demands, since this will have an large adverse effect on the activities but only a very little positive effect on the environment.

- comment 532 comment by: *Deutscher Aero Club e.V. (DAeC)*
- Remark:
Neither the term ultralight aircraft nor the term produced in a industrial manner is defined by the NPA or by other relevant EU-regulation.
- No additional regulations are needed in Germany.
- Justification:
In Germany, all Ultralight Aircraft are covered by airworthiness requirements LTF-UL 2003 (mostly according to CS-VLA) and environmental requirements LVL 2004.
- comment 548 comment by: *ECA - European Cockpit Association*
- ECA supports the idea of a single standard for safety for all users of civilian airspace.
- comment 570 comment by: *ADV*
- The environmental impact of this aircraft types is minor, the administrative overhead is not related to the results, environment standards are checked during the certification process.
- Unless a demonstrated problem exists, then we believe that this would be excessive regulation that would increase costs disproportionately with little environmental benefit, and this is a principle that we could not support.
- comment 573 comment by: *The Norwegian Ministry of Transport and Communications*
- The Norwegian Ministry of Transport and Communications has no comments on this issue.
- comment 586 comment by: *British Airways*
- British Airways does not operate aircraft of this type, and therefore we have no firm opinion on the question, however, it would seem bureaucratic to impose such rules on those aircraft. Unless a demonstrated problem exists, then we believe that this would be excessive regulation that would increase costs disproportionately with little environmental benefit, and this is a principle that we would not support.
- comment 596 comment by: *Walter Gessky*
- Question 1:**
This subject is supported, UL aircraft should be subject to common environmental rules, but in addition UL aircraft should be subject of common requirements in the field of civil aviation as regulated in EC 216/08 and therefore deleted from Annex II.
- comment 641 comment by: *Flughafen Paderborn Lippstadt GmbH*

Considering the environmental impact that can be imputed to ultra light aircraft the cost benefit of additional environmental regulation exceeding environment standards set during the certification process would be unproportional. Therefore, the regulation would only create an excessive burden to all involved and be of minor practical use.

comment 655

comment by: NATS

It is not appropriate for NATS to comment on this question.

comment 703

comment by: Department for Transport

It is noted that the European Council has kept these aircraft out of community level competence for safety aspects.

In principle we have no objection to integrating safety & environmental aspects and can see benefits in this approach which would ensure a "common playing field" throughout Europe. We agree in principle that ultra light aircraft should be subject to common environmental rules, provided these rules come into existence at the same time and are consistent with rules for safety & airworthiness. Unless and until there are proposals to bring in community safety rules for these aircraft, it would not make sense to introduce environmental rules. This would be inconsistent and appear to indicate that the environment has greater importance than safety, a position which UK stakeholders do not support.

The UK already has noise standards in regulations for microlight aircraft and we would not wish to see any lowering of these standards. These are set out in the Air Navigation (Environmental Standards) Order 2002.

The question presented proposed that environmental rules should only apply to ultra light aircraft produced in an industrial manner. However, we feel that there should be no distinction in the standards to be achieved between homebuilt and industrial built aircraft.

comment 705

comment by: AgustaWestland

Do not believe that EASA should unilaterally develop environmental certification regulations for ultra light aircraft. The issue is properly addressed in the ICAO certification standards development process.

comment 739

comment by: Rolls-Royce plc [DGJ]

It seems sensible that all airborne vehicles in volume production be subject to the same framework of environmental rules, provided that those rules recognise (and are sensitive to) the wide range of environmental impacts that these vehicles might have. Regulation should be proportional to the potential for environmental damage a particular class of vehicle might pose.

comment 779

comment by: APU

We think that the ultralights should stay in AnnexII therefore the environmental issues should not be regulated on community level.

In "ultralights produced in an industrial manner " it is necessary to define ultralight aircraft classes and types which are foreseen to be incorporated.

These ultralight aircrafts are already recognized as environmentally friendly in many aspects: silent, low fuel consumption, unleaded fuel, modern engine technologies, etc.

comment 792

comment by: *ECOGAS*

ECOGAS believes that any rules introduced to cover ultralight aircraft produced in an industrial manner should be carefully considered, and the requirements set at a level which encourages manufacturers of such products to build compliant aircraft, rather than avoiding environmental regulation by switching to the delivery of part-built aircraft. The regulations will only succeed if the population of manufacturers can be kept 'on side' with the requirements. Ultralight aircraft produced in an industrial manner should not be financially disadvantaged compared to their amateur-built counterparts.

comment 804

comment by: *Satu Routama*

1. Yes. All aircraft should be under the same environmental regulation.

comment 811

comment by: *IACA International Air Carrier Association*

IACA members do not operate such ultra light aircraft. However it seems bureaucratic to impose such rules on those aircraft, unless a demonstrated problem exists. However, the performance of these aircraft is such that they can be a very disruptive element in air traffic management unless subject to common rules. For example can continuous descent approaches (CDA) from cruise altitude, or so-called green approaches, be disrupted by VLJ aircraft unless handled in an orderly manner.

comment 819

comment by: *CAA FI*

If the noise and emission issues would be taken in to consideration already in the manufacturing of ultra-light aircrafts produced in an industrial manner, the reaching of the environmental target and requirements would be easier as these aircrafts would thus produce less noise and emissions. However, these requirements should not be applied in a retroactive manner, i.e for aircrafts registered before the entry into force or the possible requirements and these requirements should only be applied to the certification requirements and not for the operational requirements.

[Obs: As different countries use different definitions of "ultra-light aircraft", in this answer FCAA makes reference to the definitions of Regulation (EC) 216/2008, Annex II (e) types of aircrafts, excluding the aircrafts listed in Annex II (c)]

comment 824

comment by: *Munich Airport*

The environmental impact of this aircraft types is minor, the administrative overhead is not related to the results, environment standards are checked during the certification process. Unless a demonstrated problem exists, then

we believe that this would be excessive regulation that would increase costs disproportionately with little environmental benefit, and this is a principle that we could not support. This kind of aircraft don't operate at Munich Airport.

comment 838 comment by: *Direction Générale de l'Aviation Civile*

The French Civil Aviation administration does not agree that ultra light aircraft should be subject to common environmental rules at the European Union level. Indeed, these aircraft only raise environmental issues that are local and that therefore should be addressed at other levels than the European Union level, whether in the fields of greenhouse gas emissions, noise or pollution.

Cooperation within the International Civil Aviation Organization (ICAO) could also be considered.

comment 844 comment by: *CAA-NL*

Currently MLAs are not subject to requirements at community level. Before the environmental requirements are harmonised, it is probably advisable to determine whether it would be better to regulate this category of aircraft at community level, rather than at national level. As the environmental requirements form part of the design specifications for the aircraft, it would appear logical to include them, if MLAs were to be adopted into the community system.

comment 851 comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*

ERA has no clear opinion on this question. However additional bureaucratic processes should be avoided that would result in excessive regulation and additional cost which is disproportionate to any environmental benefit that could be gained.

comment 906 comment by: *Dassault Aviation*

The gaseous environmental impact of ULA has been proven to be low compared to commercial aviation due to its volume. Due to a different type of operation and especially to differences from one operator to another, it is very difficult to evaluate this fleet impact on environment and especially the impact of any gaseous emission stringency. These are some reasons why ICAO elected not to include them in the current gaseous emission environmental rules.

Moreover, ULA uses different propulsive systems and technologies. The current rules based on turbofan technologies are therefore not applicable. A full set of rules depending on the technologies will need to be defined.

Therefore, it is believed that the environmental benefit to include VLA is low compared to work needed to define appropriate rules on gaseous emission.

comment 957 comment by: *AOPA-Sweden*

AOPA:s position is that ultralight aircraft should not be governed by common environmental rules and the reason for this is that the amount of such airplanes is so low which means that their environmental impact is negligible.

comment 979 comment by: ACI EUROPE

ACI EUROPE agrees that ultra light aircraft (produced in an industrial manner) should be subject to common environmental rules and that certification requirements and procedures shall be adapted consequently. Such aircraft fly over communities at relative low altitudes and can raise environmental concerns at individual airports. They might indeed be regulated at Community level to the same extent as other (commercial) aircraft. When ultra light aircraft are involved in commercial air transport, it is obvious they should be submitted to common rules.

comment 985 comment by: MT-Propeller Entwicklung GmbH - DOA EASA 21J.020

We do not agree that ultra light aircraft, even when produced in an industrial manner, should be subject to common environmental rules. These aircrafts are sport products and are not subjected to EASA regulations and should be treated like the Annex II aircrafts. It must be mentioned that ultra light aircraft is not defined at EASA. The wording -Ultra light aircraft- is mainly used in Germany. It must be still possible in Europe to conduct to do sport with aviation products at a low cost level for Ms/Mr Average. The current system should be retained.

comment 999 comment by: AEA

Commercial airlines do not operate aircraft of this type, and therefore AEA has no clear opinion on the question. However, it seems bureaucratic to impose such rules on those aircraft. Unless a demonstrated problem exists, this would be excessive regulation that would increase costs disproportionately with little environmental benefit; this is a principle that we could not support.

comment 1017 comment by: Environmental Court Vänersborg Sweden

S.k. ultralätta flygplan bör omfattas av de vanliga miljöreglerna. Planen ger upphov till olika typer av störningar som t.ex. kan vara av betydelse vid en miljöprövning av en flygplats.

Translation by Centre de Traduction

Ultralight aircraft should be subject to common environmental rules. These planes give rise to various kinds of disruption that may, for example, be of significance in an environmental inspection of an airport.

**A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment
- Scope - Aerodromes**

p. 7

comment 6 comment by: KLM

21.
The air quality around an aerodrome is largely affected by the road traffic that is creating a larger emission and bad dust than the air operations. Handling equipment could be regulated for noise and emissions, but in a realistic way.

The orientation of runways and in general airport design is mainly based on weather and traffic demand. When this has to be regulated it will prevent in many cases the building of an aerodrome. When regulation would be implemented it should be focusing on prevention of problems by prohibition of residential housing in a certain range from the airport, require CDA and CDFA for air operations, rather than restrictions to the aerodrome and operations.

comment 7 comment by: KLM

22.
EASA should stick to aviation safety instead of getting involved in this environmental issue.

comment 54 comment by: FRAPORT AG

21. "Aerodromes are of course main contributors to aviation noise and downgrading of local air quality for their neighbours.": **No! The aerodromes themselves are not. The aviation activities of a/c related to the aerodromes are the main contributors.. The text must be clarified!**

comment 55 comment by: FRAPORT AG

21. "Any action aiming at ensuring civil aviation environmental compatibility must then include the proper regulation of their design and any aviation operation at or near the aerodrome.": **Yes, the airport operator, airlines and ATC will take care.**

comment 56 comment by: FRAPORT AG

21. "As the EASA system will cover the safety regulation of these aspects, including in particular runway orientations and arrival/departure trajectories, synergies would be created if it addressed also at the same time their environmental dimension.": **No, synergies may only be few, because environmental aspects are very often in contradiction to safety or operational aspects. A basic EASA rule will never cover locally individual priorities.**

comment 57 comment by: FRAPORT AG

22. Fraport fully agrees!
22. General guidance for environmental protection is already provided by ICAO.

comment 58 comment by: FRAPORT AG

23. Fraport fully agrees! The administrative sovereignty should not be with the EASA.

comment 121 comment by: Aero-Club of Switzerland

Looking at the first sentence of 21.: Is the Agency also aware of the positive aspects aerodromes of all kinds have to the region in which they are situated?

Who will define the acceptable level in Frankfurt/Main, Frankfurt/Oder, Kirkenes or Brive La Gallarde? We suggest that the Agency must not regulate what is better regulated by someone else.

Justification: The perfectly regulated airport will most probably be ready when no-one will need it any longer because of the high cost and the too short opening hours.

You write: "It is questionable therefore whether aviation should engage in regulating itself in such a context. Our opinion is: We think it is not only questionable, it is absolutely unnecessary.

Justification: All 27 + 4 member states have their own land-use legislation, no parallel acts are required.

comment 165

comment by: *KLM Engineering & Maintenance*

A.IV.23 Aerodromes: In many member states already strict laws apply for both noise- and engine emissions produced by aircraft at aerodromes and their surrounding area. Additional regulations as mentioned in NPA2008-15 will increase the complexity of these laws whereas there is no evidence that these regulations will have an added value.

comment 216

comment by: *jobeckers UECNA*

UECNA appreciates that EASA has become responsible for issues regarding environmental pollution.

There is no procedure in place, which allows for an independent control system. This is the reason why considerations of environmental protection are frequently ignored.

Land utilization plans shall include the exposure of people by all noise sources (traffic, industrial plants, and aircraft, otherwise this may lead to high concentrations of noise.

comment 261

comment by: *UK CAA*

Page No: 7

Paragraph No: 21

Comment:

The UK CAA does not consider that a clear and convincing case has been made for extension of competence to environmental licensing of aerodromes. These issues should be dealt with at national or local level.

Justification:

The claim that synergies would be created if EASA addressed the safety dimension of aerodrome regulation at the same time as the safety aspects, ignores the equal scope for the creation of conflicts between environmental and safety regulation. There are a significant number of examples of this in the draft ERs. One example is about runway arrival and departure trajectories that are of real concern to local populations which may be affected by noise. However, the safety of these operations must take primacy thus creating scope for conflict.

More generally ER 2 aerodromes 2(i) demonstrates an unrealistic approach to the capacity, social and cultural dimensions of environmental policy and regulation; taken as read this would give a strong argument to lobby groups who oppose any development at European airports, thus potentially undermining capacity policies etc.

comment 262

comment by: UK CAA

Page No: 7
Paragraph No: 22
Comment:

The environmental impacts of airport design including building design should not form part of EASA's remit.

Justification:

The last sentence of para 22 states that the revised Basic Regulation would only cover the environmental protection aspects of airport operations and design for those subjects regulated for safety. This does not seem to address the possibility of a need for a total system approach to environmental protection, which the Community may wish to consider. This argues for a separate set of Community rules for the environmental performance of aviation, which would be compatible with wider Community policies on the environmental protection of citizens.

comment 301

comment by: Luftfahrt-Bundesamt

21. - 23.

General: We do not see any necessity that airport operations and airport design with respect to environmental issues should be regulated by EASA.

Directive 2002/30/EC on noise-related operating restrictions has already the aim of creating a uniform framework of regulations and procedures for operating restrictions at the airports of Member States. Therefore we do not see any necessity for EASA to cover this task.

comment 351

comment by: AIRBUS

§ 21

The paragraph 21 reads:

"[...] As the EASA system will cover the safety regulation of these aspects, including in particular runway orientations and arrival/departure trajectories, synergies would be created if it addressed also at the same time their environmental dimension. [...]"

Several actors are concerned by the proposed requirements. The interactions between the responsibilities of the different actors of the environmental protection are not addressed in the document, in order to avoid gaps or overlaps.

comment 405

comment by: Light Aircraft Association

Aerodromes
 Paragraph 21

On a purely pedantic technical aspect, the statement that "aerodromes are the

main contributors to aviation noise and the downgrading of local air quality for their neighbours" is patently absurd! Aerodromes are concrete, tarmac, buildings, fences and of course lots of very environmentally friendly grass and hedgerows; none of which makes any sound or pollution whatsoever!

The activity on aerodromes may make noise and produce emissions in the form of vehicles, people and aircraft plus all the wildlife in the form of grass, wild flowers, rabbits, hares and birdlife, etc!

Taking the full 'aerodrome' definition also means that water aerodromes are included and these are definitely wholly environmentally friendly with only fish and aquatic creatures. The largest number of 'aerodromes' are undoubtedly farm strips, early airfields that are fields of grass with no tarmac or concrete runways, and ex wartime aerodromes with only one or two active runways. The majority of these sites already have higher environmental values than the surrounding industrially farmed fields or building developments. Only on these 'aerodromes' will the rare wild flowers be found as most have not been sprayed with any chemicals since the 1940's.

Taking the full environmental dimension of aerodromes, they do not continually produce noise and emissions as by the very nature of the operation; aircraft movements are limited to intermittent landings and takeoffs plus a small amount of taxiing. The definition of "aerodromes" is far too wide to try and group them all under this one heading. Aerodromes such as Heathrow or Brussels bear very little resemblance in environmental terms to aerodromes like Old Warden or Compton Abbas or the huge variety of landing grounds in between. It is impractical to regulate a farm landing strip to the requirements of a major international airport.

Paragraph 22

Power generation, building design, vehicle emissions are already covered by national and international environmental regulations and EASA are correct in saying that these should not be covered by EASA. We therefore agree.

Response from the Vintage Aircraft Club

Paragraph 21

The statement is factually incorrect as "aerodromes" are often the exact opposite! The majority of "aerodromes" are relatively large grass areas with a few buildings near the edge. Most have the environmental credentials other areas strive for. The grass is mown, no chemicals are used to control unwanted natural flora and wildlife is extensive. Pilots operating from these quiet areas already fly in a manner that reduces their impact on the surrounding countryside.

Most historic aircraft operate from grass "aerodromes" and attempts to add further regulation to what is in reality a very simple operation would be impractical and will be resisted.

This NPA attempts in one document to cover operations from international airports right down to flying from farm strips, an obvious impossibility. If the problems of environmental impact are highest at international airports then this is where the NPA needs to be focussed.

comment 533

comment by: *Deutscher Aero Club e.V. (DAeC)*

No additional regulations are needed where already existing management systems can be used. If there is missing regulation concerning the environmental dimension of air traffic at airports, aerodromes and airfields, optimize the existing management systems.

Justification:

Common environmental rules for airports, (commercial) aerodromes and airfields managed by airport clubs already exist:

EMAS (and partly ISO), Sport-Audit Luftsport for airfields managed by airport clubs.

comment 622

comment by: *BALPA*

Para 21 - Safety must take precedence, ie the control tower at an airfield must be positioned where the occupants can provide the safest service - not where environmentalists feel it looks best. The Agency should regulate to its own competencies, ie aviation, not the environment.

comment 657

comment by: *NATS*

Paragraph 21: There are already conflicts between safety and environmental considerations with respect to issues such as arrival/departure trajectories. Including the regulation of safety and environmental issues within the same organisation will not remove these conflicts. Safety considerations must remain paramount.

comment 713

comment by: *General Aviation Manufacturers Association (GAMA)*

The statement in Paragraph 21 is incorrect and misleading. Aerodromes are of course the main contributors to aviation noise for their neighbors, but for downgrading local air quality for their neighbors. There are many potential sources, such as automobiles and industrial facilities, which affect local air quality far greater than Aerodromes with significant differences from one local area to another.

comment 752

comment by: *European Microlight Federation*

The assertion that "*aerodromes are of course main contributors to aviation noise and downgrading of local air quality for their neighbours*" is so sweeping as to be meaningless. While this may certainly be the case as far as international airports are concerned, for many small aerodromes and farm strips from which EMF members fly the major source of noise and air pollution remains road vehicles, farm vehicles and farm animals. The EMF believes that the European Commission seeks to exclude small aerodromes from the applicability of the EASA rules and expects that these excluded small aerodromes to be similarly excluded from EASA environmental rules.

comment 793

comment by: *ECOGAS*

Aerodromes are not "of course the main contributors to....downgrading of local air quality for their neighbours." This might be true at very large airports, but small General Aviation airports are frequently areas of greenery and clean air in comparison to neighbouring roads and industrial sites. Any environmental regulation of airfields must be proportionate, with sensible de minimis levels.

comment 852

comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*

Paragraph 21

ERA questions whether EASA has the competency to become involved in this area. It should not be the role of EASA to become involved with environmental regulation at individual aerodromes.

comment 896

comment by: *Cathay Pacific Airways***Paragraph 21**

This statement is not factual. By way of example, the downgrading of local air quality around one major European airport is caused in large part by traffic on the surrounding motorway network. Additionally, the most substantive contributor to NOx emissions is a diesel rail line to the north of the airport which produces higher than acceptable levels of NOx.

Paragraph 23

This statement appears to question and challenge the fundamental principles of the ICAO balanced approach by asserting that the process is not valid and that other alternative legislation is required.

**A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment
- Scope - Aeronautical products - Aerodromes - Question 2**

p. 8

comment 8

comment by: *KLM*

- A) Not agree
- B) Agree

comment 24

comment by: *Royal Aeronautical Society*

Q2: a) In the interests of consistency, to exploit the potential for synergies and to facilitate proportional balance between safety and environmental protection, airport design and airport operations already covered by safety regulation should also be regulated for their environmental impact through the EASA system.

Q2: b) A holistic approach embracing all sources of noise and pollution should be pursued through a single code of regulations. It is essential that EASA ensures that the safety of operations remains paramount.

comment 47

comment by: *Samuel WENGER***Question 2a):**

As explained under general comments, I am not in favour of centralised environmental rules to be imposed on airports. Each airport has its specific topographic, meteorological and urban environment in which it must be able to operate to optimum. Instead, useful guidance and arguments should be provided to help airport operators in finding and communicating the local optimum, sort of dos and don'ts.

Question 2b):

It is inherent to the concept of land use planning that it must encompass all relevant parameters, well beyond environmental exposures of all kinds. The dilemma in most cases is that land use planning comes only once the conflicts

are already there. The result is no more a planning, but rather a try to resolve conflicts which depends heavily on political forces.

In order to strengthen the airport's arguments, it might be useful to define and recommend satisfactory exposure metrics, explaining also the effects / annoyance / reactions to be expected at different exposure levels. The setting of effective limits should be left to national or local authorities, allowing them to take into account the full balance of parameters, including costs and airport capacity.

comment 59

comment by: *FRAPORT AG*

a) No!
b) Yes!

comment 88

comment by: *Lars Hjelmberg*

EASA is not the right body to regulate airports -- because what is acceptable to one is not acceptable to another. So these things shall be made on local level. Noise might be of interest in a large city -- but on the tundra where wind is blowing with noise all the time -- people there will be happy to see and hear the aircraft when it comes -- because it is the connection to the world.

comment 106

comment by: *SAS Norway*

a) To provide a general level of environmental regulation for airports may have benefit, however there are a number of very stringent local regulations in various fields applying to certain airports, and to have such stringency made general would be wholly inappropriate and have a very detrimental effect on aviation in Europe.

b) EASA should not extend its regulatory approach to areas outside aviation. From a community/county perspective it would make sense to look beyond aviation alone, but this should not be mandated by EASA.

comment 136

comment by: *EHPU*

As pointed out in the previous consultation on aerodromes, the term 'aerodrome' is not properly defined. As EASA rules presently stands, any and every small space on a footpath on a mountainside is perhaps 'an aerodrome' (if a paraglider pilot chooses to take off from it).

Question 'a' asks about 'airports'. What is an airport? Is this the same as an aerodrome? (Any space where aircraft take off or land.) If an 'airport' is the same thing as an 'aerodrome' (i.e. any space where aircraft take off or land) then we believe very strongly that there is no case for any further regulation on environmental grounds. Hang gliding and paragliding usage has little or no environmental impact - and any EASA regulation primarily aimed at the type of 'airports/aerodromes' used by commercial air transport and the heavier end of General Aviation will be completely inappropriate when applied to the 'small spaces on footpaths' used by hang gliders and paragliders. If any further work is done on this is must have inserted a clear statement 'None of this applies to the take-off and landing spaces used by all classes of hang glider and paraglider. And 'None of this applies to the take-off and landing spaces used by

aircraft below 115kg empty mass without pilot and fuel'.

Question 'b'. No opinion. (But it should contain a clear statement that 'None of this applies to the take-off and landing spaces used by all classes of hang glider and paraglider' and 'None of this applies to the take-off and landing spaces used by aircraft below 115kg empty mass without pilot and fuel'.

comment 142

comment by: *British Gliding Association*

a) EASA is currently seeking to extend its competency to include aerodrome and ATM safety. The BGA believes that aerodromes not open to public use and that do not publish instrument approaches for aircraft above 2730 kg should not be subject to EASA regulation, the BGA additionally believes that aerodromes not subject to EASA regulation should not be subject to EASA environmental rules.

b) The BGA agrees that that land use planning around aerodromes is better regulated at horizontal level, taking into account all sources of noise/pollution, rather than from an aviation perspective only.

comment 156

comment by: *Aero-Club of Switzerland*

To a) Our answer is no, we do not agree.

Justification: Where from will the Agency take the specialists needed for airport design (at all levels), airport operation, land use, bird control? Leaving this to civil entrepreneurs and to the local authorities will bring better results quicker and cheaper.

To b) We agree with the proposed horizontal level as long as this horizon is not too far away.

Justification: Question b) has nothing to do with the core-activities of the Agency, which is Aviation Safety. Leave the land use business to the ones who understand it and care for it already now.

comment 185

comment by: *EUROCOPTER*

Question 2b: Eurocopter agree that land use planning around aerodromes should be better regulated at horizontal level, taking into account all sources of noise/pollution, rather than from an aviation perspective only.

comment 201

comment by: *ADVOCNAR*

a) oui l'EASA system doit traiter l'impact environnemental concernant la conception et l'exploitation des nouveaux aéroports, les évolutions des aéroports existants.

L'exemple de Roissy CDG est significatif :

- les développements récents des infrastructures et du trafic de l'aéroport ont été réalisés sans étude environnementale préliminaire publique (aménagement relatifs à l'A380, aux terminaux...)

- Le rapport du député Gonnot en 2003 a démontré que la modification de

l'orientation des pistes de quelques degrés aurait considérablement réduit l'impact environnemental en préservant des zones très urbanisées.

Contrôler au niveau européen la cohérence des composantes sécurité, opérations et environnement lors de la conception ou l'évolution des aéroports est une nécessité pour garantir leur moindre nuisance. Nous pensons de même que placer la conception des aéroports au niveau européen permettra, dans l'avenir, de considérer des nouvelles plates-formes transnationales de moindres nuisances.

b) chaque aéroport commercial en France fait l'objet d'un plan d'exposition au bruit (PEB) et d'un plan de gêne sonore (PGS) fixant les règles de construction autour des aéroports et n'intégrant qu'un seul élément : la carte des contours de bruit. Ces plans ne prennent pas en compte les densités de populations survolées existantes et donc n'optimisent pas la réduction des nuisances. De plus, ils n'intègrent pas les autres sources de bruit et pollution d'origine terrestre. Ils se substituent, de fait, aux exigences de la directive 2002/49 CE qu'ils ne satisfont pas.

Une approche horizontale tenant compte de toutes les sources de bruit et de pollution concrétisée par des plans de prévention à définir est nécessaire. Cette approche doit être concertée avec les instances européennes (EASA) pour ce qui concerne les nuisances aériennes.

Translation by Centre de Traduction

a) Yes. The EASA system must deal with the environmental impact concerning the conception and operation of new airports and the development of existing airports.

The example of Roissy CDG is significant:

- recent developments in the infrastructures and traffic at the airport have been achieved without a preliminary public environmental inquiry (improvements relating to the A380 and the terminals, etc.);
- the report by Member of Parliament Gonnot in 2003 has shown that an adjustment to the orientation of the runways of a few degrees would have considerably reduced the environmental impact by preserving highly urbanised zones.

Verifying the coherence of security-related, operational and environmental elements during the conception or the development of airports at European level is essential in order to guarantee their reduced pollution. We nevertheless believe that bringing the conception of airports to a European level will make it possible in the future to consider new trans-national platforms for reduced pollution.

b) Every commercial airport in France is the subject of a noise exposure plan (PEB) and a noise pollution plan (PGS) laying down rules governing construction around airports integrating only a single element: a noise contour map. These plans do not take account of the existing densities of the populations living under the flight paths and accordingly do not optimise the reduction in pollution. Furthermore, they do not integrate other sources of noise and pollution of terrestrial origin. In fact, they act as a substitute for the provisions of Directive 2002/49 CE, which they do not satisfy.

A horizontal approach is necessary in order to take account of all the sources of noise and pollution that are embodied in the prevention plans that remain to be defined. This approach must be devised in association with the European authorities (EASA) as far as aircraft pollution is concerned.

comment 206

comment by: *BDF - German Airline Association*

Yes, common regulations for environmental impacts are welcome. This is especially important for airports situated near borders. This will give the airlines and airports a guarantee on operations.

comment 217

comment by: *jobeckers UECNA*

UECNA appreciates that EASA has become responsible for issues regarding environmental pollution.

There is no procedure in place, which allows for an independent control system. This is the reason why considerations of environmental protection are frequently ignored.

Land utilization plans shall include the exposure of people by all noise sources (traffic, industrial plants, and aircraft), otherwise this may lead to a high concentration of noise.

comment 265

comment by: *UK CAA***Page No: 8****Paragraph No: Question 2 a)****Comment:**

The UK CAA does not agree that airport design and airport operations that are covered by safety regulation in the EASA system should also be regulated for their environmental impact through the EASA system.

Justification:

Existing EC Regulation (97/11/EC) already ensure that the development of airports with a basic runway length of 2100 metres or more are made subject to an Environmental Impact Assessment. Environmental requirements such as restrictions on noise and emissions are already determined and legislated through existing EC Regulations.

The environmental envelope at an aerodrome embraces aerodrome and ATM and the resulting control environment should be viewed as continuous and not divided into aerodrome and ATM. Most aerodromes in the UK (and probably Europe?) are operated by single organisational entities operating under a single environmental management system, not two separate management systems (one for aerodrome and one for ATM).

Including similar requirements within Essential Requirements (ERs) for the certification of aerodromes will create the possibility of dual regulation, resulting in confusion for the industry and for the Authorities responsible for oversight. It is not clear what the relationship will be between the proposed ERs and other EC Directives. Nor is it clear whether the safety ERs or environmental ERs will have primacy in cases where conflicts arise between environmental, safety and operational criteria.

comment

266

comment by: UK CAA

Page No: 8
Paragraph No: Question 2 b)
Comment:

The UK CAA agrees that land use planning around aerodromes is better regulated at a horizontal level, as is already the case and should not be done by EASA. Existing EC Regulation (97/11/EC) already ensures that the development of all airports with a basic runway length of 2100 metres or more are made subject to an Environmental Impact Assessment. This legislation is implemented by Member States and, as such, can be regulated at a national level.

Justification:

Land-use planning decisions should be made at a local level within national planning guidelines. Once the determination has been made, the manner of its application as regards safety and environmental requirements is overseen by the relevant regulator.

EASA could not have competence to draft legislation that would need to be applied by other bodies (such as Local Planning Authorities). EASA involvement in this process would only add additional complication.

comment

285

comment by: LADACAN

Question 2

a) LADACAN believes that risk to third parties is as much an environmental impact of aerodrome operation as noise and air pollution. We, therefore, support the integrated approach which would arise from regulation of all environmental impacts through the EASA system.

b) In the case of community noise, horizontal regulation has resulted in the application of "lowest common denominator" noise metrics based on Leq indicators. These are totally unsuited as indicators of annoyance or disturbance from aircraft noise and so will never deliver adequate protection for the people living close to airports.

Further, in our experience, planning professionals who are required to deal with land use matters in relation to airports seldom have the technical expertise to effectively deal with the impact of aviation on public safety, noise or pollution.

We, therefore, believe that land use planning in the vicinity of airports would be better regulated from a single aviation environmental protection perspective which would include safety.

comment

289

comment by: Federal Office of Civil Aviation (FOCA), Switzerland

a) airport design: we clearly refuse a regulation through EASA in this domain.

a) airport operations: we clearly refuse a regulation through EASA in this domain.

b) land use planning: we agree with the Agency that land use planning around aerodroms is better regulated on a national horizontal level. Therefore it has to be regulated nationally.

comment 295

comment by: *Luftfahrt-Bundesamt*

Question 2:

- a) No, the LBA does not agree.
- b) No, the LBA does not agree.

comment

330

comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)*

a. We consider that the present and already proposed extensions of the Basic Regulation shall be fully implemented before discussing regulation of environmental issues by EASA. Furthermore, it depends on how the EASA system would treat the question of subsidiarity (please note paragraph 2 above).

b. We consider land use planning around airports is better regulated at horizontal level, taking into account all sources of noise and pollution.

We consider that the existing land use planning system in Sweden described below is well suited for land use planning around airports.

In Sweden, the municipality is responsible for the land use planning. For each municipality, there is a comprehensive plan that gives guidance for descisions concerning land use and development of the built environment. The plan is used as a basis for descisions, illustrating the overall environmental situation in the municipality. The plan is not legally binding.

The principle is that for all construction projects, the detailed development plan must be used. It is a legal agreement between municipality, public and land owners. The aim is to implement the intentions of the comprehensive plan. One important part is to make the process open for public participation. The detailed developement plan is legally binding for the public and authorities. The detailed development plan may not harm the operations at major airports. In that way the Swedish land use planning system prevents incompatible land use around airports.

comment 340

comment by: *BMVBS, DE*

2a) BMVBS believes that airport design and airport operations covered by EASA safety regulation should not be subject to further regulation by EASA in terms of their environmental impact. In Germany, there is a well-proven system of approval checks, impact balances and prevention/abatement legislation in place (e.g. airport approval procedures, noise abatement law, also various EU regulations transposed into German law). This system thoroughly considers all impacts of an airport's design and operations, be it noise, gaseous emissions, land use, ground water effects, waste water treatment or other environmental impacts. It must not be superseded or made more complicated by another layer of certification.

2b) BMVBS is of the opinion that due to the strictly local impact land use

planning is a matter of subsidiarity and therefore not for EASA to decide upon.

comment 382

comment by: *International Air Transport Association (IATA)*

Question 2

a) *The Agency is interested in knowing whether stakeholders agree that airport design and airport operations that are covered by safety regulation in the EASA system should also be regulated for their environmental impact through the EASA system.*

- IATA's principal concern regarding this question is the implicit presupposition that all aerodromes currently are, or should be, subject to environmental certification and that therefore an extension of the EASA system could lead to the creation of a mandatory certification regime for all aerodromes, regardless of whether an environmental need exists. A blanket approach would not be acceptable given that the situation at every airport is different.
- We would remind EASA of the ICAO Balanced Approach to Aircraft Noise Management and associated European Directive, where the requirements to analyse options for noise mitigation should be considered only at airports where there is an identified noise problem. The individual, or a combination of, elements comprising the balanced approach should then be the subject of a cost benefit analysis, which should provide the basis for any decisions taken.

b) *The Agency is interested in knowing whether stakeholders agree that land use planning around aerodromes is better regulated at horizontal level, taking into account all sources of noise/pollution, rather than from an aviation perspective only.*

- It is not immediately obvious what role EASA could play in regulating land use planning around aerodromes, given that a) many EU Member States already have their own strict land use regulations, and b) the EU has no legal competence on the issue.
- This is not to say that IATA believes land use planning isn't important - indeed it is crucial that all noise and emissions sources at and around aerodromes are considered. But, as explained earlier, unless new EASA rules would supersede existing rules, thereby simplifying the legal framework, it is not clear what EASA's role should be.

comment 396

comment by: *General Aviation Awareness Council, UK*

a) We do not agree that General Aviation aerodromes should be regulated for their environmental impact through the EASA system, whether or not they are covered by safety regulation within the EASA system.

b) If "regulated at horizontal level" means that land use planning considerations for aerodromes takes into account not only aviation noise etc. but also such effects as various sources of noise or pollution including transportation to access the aerodrome ground side, we agree that limiting the perspective only to flying effects is insufficient. We note, however, that EASA states (paragraph 23) that the "legal basis for these activities would be in other regulations than the Basic Regulation". It is not clear why this question is therefore included in this paper.

In the UK and most or all other European countries, planning constraints are already set by local or higher governmental authorities which seem to address this. The potential of Directive 2002/49/EC (to which EASA refers) seems to indicate that even more future constraints could be applied, regardless of EASA and its present proposals. It is not apparent what EASA could or should bring to this proposal, but in General Aviation we have no doubt that any more regulation would add a burden with no additional benefits.

We dispute that "21. Aerodromes are of course main contributors to aviation noise and downgrading of local air quality for their neighbours." Clearly, aircraft operations and aviation noise are more noticeable near aerodromes simply because aircraft are flying lower than when cruising. However, most aircraft at GA (light aviation) aerodromes are relatively quiet and conform to locally-agreed noise abatement procedures. It is large transport aircraft operations at major aerodromes that generate most aviation noise and they cannot, of course, operate from small aerodromes. As to "downgrading of air quality", we have no knowledge of any evidence of any downgrading of air quality at light aviation aerodromes and flying sites and, self-evidently, there is no significant downgrading at all from glider and hang-glider operations. The positive environmental aspects of small aerodromes - vegetation providing habitats for small creatures, birds, insects, etc. - have also not been taken into account. There are also aerodromes where their neighbours are delighted at their positive environmental (and social) impact. In General Aviation, probably the majority of flying sites (which include gliding aerodromes, farmers' strips, microlight and ultralight aircraft strips, model flying sites, etc.) have little or no noise impact and no discernable air quality effect on their neighbours. Most neighbours of such sites either do not notice their presence or positively welcome their existence as an amenity. In our view, the statement at the start of para.21 should be re-worded to refer to major aerodromes as it is inaccurate as it stands.

The total noise energy received by neighbours from a GA aerodrome is often, perhaps almost always, less than that from passing traffic, other neighbours using lawnmowers and hedge trimmers, and other non-aviation sources, or even in some cases from overflying transport or military aircraft based elsewhere. Unless authoritative noise surveys have been carried out, the premise upon which this question is based is unfounded opinion, not established fact.

comment 406

comment by: *Light Aircraft Association*

Answer to Question 2

a) Again the simple answer is no.

The agency is looking at the subject from a single, large commercial operation aspect and is not taking into account the range of operations used by aviation for the arrival and departure of aircraft. 'Aerodrome' is a loose term covering everything from a single grass strip to a major international **airport** and includes water aerodromes. Aircraft can depart and arrive from and to international locations on either a very infrequent or fairly regular basis and trying to describe all under the one heading is to expect huge problems.

Without the definition of size or operational numbers, the question cannot sensibly be answered. Any attempt by the Agency to control the design, layout or operational aspects of any size of aerodrome would be impossible to define

and would seriously affect the profitability or practicality of the operation.

Each small part of any aerodrome operation will already have environmental aspects designed into them. For example all the motor vehicles should be road legal and would therefore already meet the required regulations for noise and emissions in that country or to EU requirements. Making use of the latest down lighting for any internal roads is a requirement of the lighting standards of each country. Further national and EU regulations are already in place to cover other environmental aspects.

If any new airport were to be designed and constructed the latest building requirements would be incorporated in each structure as laid down by the regulations for that country for thermal efficiency, sound insulation, emissions and construction, etc.

Attempts to standardise all the requirements across the EU would create national problems with current planning and building regulations in each country.

It should also be noted that any major new development in the UK has to have an environmental impact study as part of the planning process.

In the reverse direction, any grass aerodrome is already more environmentally valuable than any other form of transport as many of these have never been sprayed with insecticides and have wild flowers and bird life not found in the surrounding areas. Aerodromes can also include gliding sites which are possibly the most environmentally good sites in the country.

ISO 14000 adequately covers the environmental aspects of materials and their disposal; any attempts at new regulations would be duplicating or contradicting these standards and procedures.

What is a Standard? BSI describe a standard as "a published specification that establishes a common language, and contains a technical specification or other precise criteria and is designed to be used consistently, as a rule, a guideline, or a definition".

b) Again the simple answer is no.

The reverse is however a possibility where the agency could act to prevent the location of any planned development in the noise or environmental footprint of an existing airport. This would prevent any undesirable environmental and safety issues associated with airport operations from creating any problems with anyone moving into the area.

Safety under these circumstances would be a high priority with regard to the safe arrival and departure routes for aircraft using the airport by restricting development along those routes rather than trying to adapt routes to any new development.

Response from the Vintage Aircraft Club

a) The correct word for international air operations is used here of "Airport", meaning a location where more than 50,000 passenger movements per year take place. This does not and should not apply to airfields, landing grounds, gliding sites, hang glider sites, paragliding sites, farm strips or other sites used for the operation of General Aviation aircraft as these have a very low environmental impact.

b) Land use planning could be useful in preventing the construction of developments either close to or directly in line with the arrival and departure routes of aircraft. This would ensure that the safe and environmentally good operation of the potentially affected aerodrome would be secured. This could

be used to reinforce the current "Safeguarding" maps used in the UK for planning authorities.

comment 440

comment by: *Bae Systems*

As the EASA system will cover safety regulation, it would seem logical that it also covers airport design and operations for their environmental impact.

Land planning would be better left to local authorities.

comment 474

comment by: *Fridrich Jan*

a) My understanding is that the European Commission wants to exclude small aerodromes from the applicability of the EASA rules. Therefore, I expect that these excluded small aerodromes will not be regulated through EASA environmental rules.

b) The regional differences in Europe are much better handled and more effective for the protection of the environment when they are tailored by the regional level based on expert knowledge of the situation.

comment 475

comment by: *General Aviation Manufacturers Association (GAMA)*

GAMA strongly believes that aviation safety should be the guiding principle in the design and operation of airports. This includes runway orientation and arrival/departure trajectories. While operators can, and do, take measures to minimize the environmental impact of arrival/departure operations, these measures should not be codified, as they could conflict with aviation safety. Furthermore, ICAO's balanced approach to noise regulation already accords to local authorities the authority to regulate environmental impacts at airports.

comment 490

comment by: *Air Transport Association of America, Inc. (ATA)*

Environmental considerations in airport design and operation cover a broad range of issues - e.g., power generation, building design, power delivery to aircraft, air side vehicles, ground engine running, oil disposal, noise abatement. Each of these involves a discrete set of national regulatory issues and/or operator practices. The consultation does not identify inadequacies in current practices in any of these areas, but rather proposes consolidation as a goal in itself with no additional rationale. Some aspects of airport operation, however, should be developed with reference to the specific locality. For example, the ICAO Balanced Approach to Noise emphasizes the importance of analyzing the local noise problem and developing measures best tailored to address it. Any credible examination of this policy question would require extensive consultation among States and stakeholders.

comment 491

comment by: *Air Transport Association of America, Inc. (ATA)*

The airline industry has long advocated considering aviation sources in context with all other sources of pollutants in assessing local air quality and deciding upon measures to address emissions, including land use planning. ATA advocates land use planning as an effective way to address aircraft noise, emissions, operational efficiency and safety, particularly where such measures

can prevent encroachment of incompatible development in the vicinity of airports. Decisions regarding the appropriateness of land use measures should be made case by case, in light of specific local circumstances.

comment 518

comment by: AESA

Question 2, a). We agree that airport design should be regulated for its environmental impact through the EASA system, but airport operations should be taken as a longer term process in order to give enough time to all parts involved to introduce the new regulations and rules minimized possible negatives impacts.

2,b) The question is not enough explained so we expect a deeper discussion of this point in order to understand what the Agency is trying to ask and which is the objective.

comment 523

comment by: Royal Danish Aeroclub

Answer to Question 2:

A) We do agree that EASA also should take care of the environmental area. But it is important to have the different kind of landingstrips, airfields, aerodromes, airports defined clearly and differentiate between them when it comes to regulation. In principal each strip of grass could be an airfield - but is not, and should not be covered by unnecessary regulation. We see a risk in forcing regulation for airports into airfields and landingsstrips etc. Airfields with less 1.000 operations per annum should not have a environmental permission - but only a registration.

EASA could have benefit by looking at the Norwegian rules for classification.

B) In Denmark we have seen examples of Authorities attemp to regulate small airstrips with less 50 operations per year with the same rules as large airports. This is unnessecary waste of time and common resources and should be avoided with a future regulation.

comment 535

comment by: Deutscher Aero Club e.V. (DAeC)

Which types of aerodromes shall be incorporated? Is an airfield used by hanggliders/paragliders, model aircraft or microlight aircraft an aerodrome? What is the difference between an airport and an aerodrome?

Please define „airport" and especially „aerodrome".

No additional regulations are needed in Germany, as far as airfields managed and used by air sport clubs are concerned. Exclude such airfields from foreseen EASA regulation.

Existing environmental protection laws and available management systems in Germany secure a high environmental protection standard on airfields used by air sports enthusiasts.

Therefore in general the answers could be „yes", but existing environmental protection regulations in Germany must not be weakened or strengthened by EASA regulations, as far as airfields used by air sports enthusiasts are concerned.

comment

549

comment by: *ECA - European Cockpit Association*

- ECA reiterates its position previously voiced on many occasions, that EASA should remain an agency solely and purely responsible for safety. Any environmental protection measures must be clearly subordinated to EASA's principal objective. Whether environmental protection is regulated through the EASA system or through a different approach, the supremacy of safety considerations must be clear and unambiguous.

Airport design needs to follow this order of priorities: safety, operational efficiency, environmental sustainability. For example: runway orientation should be done according to ICAO Annex 14 (with respect to prevailing winds and obstacles and to prevent operational hazards such as runway crossings).

- Land use planning and management is an important measure to achieve environmental sustainability of aerodromes. It might be wise to differentiate between measures for existing aerodromes (where only limited changes might be feasible) and for the planning of new aerodromes (where ideal conditions can be targeted).

comment

572

comment by: *ADV*

a)

We believe that airport design and airport operations covered by EASA safety regulation should not be subject to further regulation by EASA in terms of their environmental impact. In Europe, there is a well-proven system of approval checks, impact balances and prevention/abatement legislation in place (e.g. airport approval procedures, noise abatement law, also various EU regulations). This system thoroughly considers all impacts of an airport's design and operations, be it noise, gaseous emissions, land use, ground water effects, waste water treatment or other environmental impacts. It must not be superseded or made more complicated by another layer of certification.

We are concerned about the potential for a mandatory certification scheme for all aerodromes, regardless of whether there is an environmental issue or not. This would appear contrary to the ICAO "Balanced Approach" and associated European Directive, where the requirements to analyse options for noise mitigation should be considered only at airports where there is an identified noise problem. The individual, or a combination of, elements comprising the balanced approach should then be the subject of a cost benefit analysis, which should provide the basis for any decisions taken.

b)

As the European Union has no legal competence on land-use planning, it is difficult to see how EASA could be effective in this area. However, we would agree the principle of tackling all sources of noise/pollution at and around an airport, in a balanced way, and not concentrating on aviation alone.

comment

574

comment by: *The Norwegian Ministry of Transport and Communications*

a. On a general basis, we agree that airport design and airport operations covered by safety regulation in the EASA system should also be regulated for their environmental impact through the EASA system. We presume that such regulations will cover aviation specific problems only and will

not address environmental problems already covered by more general environmental regulations. Furthermore, it is an assumption that such regulations should be enforced by national authorities.

- b. The Norwegian Ministry of Transport and Communications agrees that land use planning around aerodromes is better regulated at horizontal level.

comment 587

comment by: *British Airways*

a) We are concerned about the potential for a mandatory certification scheme for all aerodromes, regardless of whether they have an environmental issue or not. This would appear contrary to the principle of the ICAO "Balanced Approach" and associated European Directive, and UK legislation, where the requirement to analyse options for noise mitigation should be considered only at airports where there is an identified noise problem. The individual, or a combination of, elements comprising the balanced approach should then be the subject of a cost benefit analysis, which should provide the basis for any decisions taken.

If the suggestion by EASA is for them to regulate airports to mandate the application of the Balanced Approach on the occasions when it would apply then, in principle, we could support this.

b)

As the European Union has no legal competence on land-use planning, it is difficult to see how EASA could be effective in this area. However, we would agree the principle of tackling all sources of noise/pollution at and around an airport, in a balanced way, and not concentrating on aircraft alone. We would also welcome the implementation of more rigorous controls on land-use planning and management around airports, as we feel that the UK situation is weak in this area. In this context PPG24 only advised that noise "should be taken into account" when developments are considered, but there is currently no UK legislation prohibiting inappropriate developments in noise sensitive areas.

In respect of noise, we would note that there is currently no consistency across the various EU member states, or even airports within each state. We do believe that EASA could have a beneficial role here in tackling the plethora of rules (local, regional, national and even EU) regarding noise and emissions regulation and restrictions at EU airports, and rationalising into a single framework. This would not only simplify the legal process but also serve to minimise market distortion issues. However, this would have to be managed under the principles of the ICAO "Balanced Approach", on a specific airport-by-airport basis.

comment 601

comment by: *Walter Gessky*

Question 2:

- a) It is not supported that the environmental impact requirements for airport design and airport operations will be regulated through the EASA system, when not required by ICAO SARP`s.

b) Land use planning around aerodromes should be regulated at horizontal level, taking into account all sources of noise/pollution. Environmental protection should not only take into account the impact of noise and emission,

but also all other additional kinds of impacts like dangerous goods, radioactive material, ozone concentration, all kinds of poison etc. This is outside of the scope and mandate of the basic regulation and cannot be regulated by the EASA system alone.

comment 642

comment by: *Flughafen Paderborn Lippstadt GmbH*

The paradigm for airport design and airport operations should be safety. This is and should be the maxim and priority over all other issues taken into consideration. It should be of great concern to all parties involved that this mindset is not tampered with for environmental issues. This being said, the balanced approach implemented and acted upon requires action and mitigation measures be taken only in cases where a problem has been identified. It is therefore our concern that in the case of regulation by the EASA system this would lead to a homogeneous certification scheme that would be implemented to all airports alike regardless of commensurability. Current regulation put upon airport design and airport operations covered by EASA safety regulation are to date sufficient and should not be subject to excessive regulation. Present legislation and procedures (e.g. airport approval procedures, noise abatement law, also various EU regulations) have all incorporated ramifications upon an airport's design and operations, be it noise, gaseous emissions, land use, ground water effects, waste water treatment or other environmental impacts and necessitate simplification rather than amplification or the need to intricate by adding another layer of certification. Regarding question 2b it is our belief that the scope of advertence must be extended to all sources of noise/pollution in the proximity of an airport. Concentrating on aeronautical activities alone will have an adverse effect on any analysis conducted and leave it imperfect.

comment 659

comment by: *NATS*

Question 2 a) NATS does not agree that airport design and airport operations that are covered by safety regulation in the EASA system should also be regulated for their environmental impact through the EASA system.

Question 2 b) NATS agrees that land use planning around aerodromes is better regulated at horizontal level, taking into account all sources of noise/pollution, rather than from an aviation perspective only, but points out that as such this subject is dealt with by bodies (e.g. Local Planning Authorities) which are not within the scope of EASA's remit.

comment 685

comment by: *AgustaWestland*

Relevant to Question n° 2b) we agree that land use planning around aerodromes should be better regulated at horizontal level, taking into account all sources of noise/pollution, rather than from an aviation perspective only.

comment 704

comment by: *Department for Transport*

The UK Governments position with regard to question 2(a) is that there may be scope for EASA to have a valuable and influential advisory role in this area. For example to produce guidance and examples of best practice to address some of the points set out in the essential requirements proposed for aerodromes. However, it needs to be demonstrated what benefits would accrue

from this. We do not believe that the regulation of airport design and operations through the EASA system for environmental aspects is desirable. Furthermore we consider these aspects are best regulated at a national or local level to reflect the particular circumstances of the airport.

In the UK with regard to airport design, under Town and Country planning legislation, local planning authorities are responsible for the control of development in their area. They will take account of UK Planning guidance when doing so. In the UK we anticipate only a very few new runways to be built. Most runways in the UK are aligned to best suit the prevailing wind for safety, operational reasons which also benefit the environmental efficiency of aircraft movements. Historically many civilian airports have developed on aerodromes previously developed for military purposes, which means that the concrete is already laid. It is therefore difficult to understand a beneficial role for EASA being involved in similar future developments.

With regard to airport operations, the Secretary of State (SoS) for the Department of Transport has powers to put in place certain noise mitigation measures at designated airports. Heathrow, Gatwick and Stansted are currently designated. The SoS can also exercise similar powers at other airports, if there is evidence that a major problem is not being dealt with adequately through local controls.

Elsewhere there are local planning agreements between the local authorities and the airport operators to minimise the environmental impact of particular developments. These agreements will include matters such as noise preferential routes and airport operating restrictions such as movement numbers, night time operations and noise quota limits.

In the UK military aerodromes are generally made available for public use on the basis of 'prior permission required'. In addition a number of military aerodromes have identified commercial opportunities from making irreducible spare capacity available to civilian operations, particularly general aviation, while others offer themselves as diversion options for users of civilian airports. All this reduces the pressure on the main civilian airport capacity and we feel that this in itself is not detrimental to the environment. However, these aerodromes remain military in purpose and as such it would be quite inappropriate for them to be included in the scope of this NPA.

For question 2(b) we agree with EASA that land use planning around aerodromes is better regulated at horizontal level, taking into account all sources of noise/pollution, rather than from an aviation perspective only.

comment 737

comment by: *Rolls-Royce plc [DGJ]*

Regarding Question 2b), land use planning falls outside Rolls-Royce's direct involvement so we are not well placed to comment. However, we would agree that it would be quite correct for such planning to consider all factors influencing the environment within and around aerodromes.

Recognising that the skills required to understand, assess and regulate factors other than aircraft movement falls well outside EASA's current expertise, we agree that, as stated in paragraph 31, the legal basis for these activities should be in regulations other than the Basic Regulation. Any EASA involvement should not extend beyond contributing towards the development or administration of such regulations, or providing data to facilitate the

implementation of such regulations.

comment 738

comment by: *Rolls-Royce plc [DGJ]*

Regarding Question 2a), airport design and airport operations fall outside Rolls-Royce's direct involvement so we are not well placed to comment. However, it seems inevitable that there will be occasions where aircraft safety will drive design in one direction whilst reducing environmental impact will drive design in another direction (an example here might be the conflict between safety and environmental impact of increasing the approach glideslope).

The safety of the aircraft must remain uncompromised (indeed, the industry loses credibility whenever compromise is even suspected). To avoid compromise, clear and unambiguous safety regulation and safety regulators are essential. If environmental impact is to be regulated through the EASA system, great care must be taken to ensure that the Agency's responsibility to safety is not inadvertently diluted. Since the proposal does not offer a detailed view of the envisaged Agency involvement, it is difficult to determine how this might be achieved.

Furthermore, certain aspects of environmental impact (particularly those relating to noise) can be managed through commercial measures (curfews etc) on those products which do not conform to a given standard. As paragraph 31 recognises, "economic measures are not part of the Agency's remit".

However, there are clearly administrative aspects of the EASA system which may be of use to those regulating environmental impact. The system of safety regulation development (through a published workplan, the drafting and release of NPAs and their availability for stakeholder comment through CRT etc) is established and well understood in the industry. It may be advantageous to all concerned if such administrative systems were adopted for the development and publication of environmental impact regulation, provided that there is no adverse impact on the development of safety regulation.

comment 743

comment by: *FAA*

2(a)

The FAA does not have an opinion on whether airport design and airport operations that are covered by safety regulation in the EASA system should also be regulated for their environmental impact through the EASA system. However, if EASA were to be given the mandate to regulate these areas for their environmental impact, the environmental aspect of regulating an airport's design and operations should be balanced with several other factors, but, in all cases safety should be the primary consideration. Efficiency and capacity are key factors as well. These must all be considered against constant features such as terrain and prevailing winds.

For considering noise-mitigation matters, the European Union already has put in place the ICAO-endorsed Balanced Approach through Directive 2002/30/EC on the establishment of rules and procedures with regard to the introduction of noise-related operating restrictions at Community airports.

2(b)

The FAA does not have an opinion on whether land-use planning around aerodromes is better regulated at horizontal level. However, we offer the following food for thought: in the United States, we have reduced by 93

percent since 1975 the number of residents exposed to significant levels of noise near airports. Part of this reduction is due to improved land-use planning through joint measures adopted by local governments, airports, and the federal government. Facilitating compatible development near airports is an important tool in the kit of measures to address airport noise. Directive 2002/30/EC recognizes the central role of appropriate land use around airports as part of the Balanced Approach concept endorsed by ICAO.

comment 755

comment by: *Europe Air Sports PM*

a)
EAS understands that the European Commission wants to exclude small aerodromes from the applicability of the EASA rules. Therefore, we expect that these excluded small aerodromes will not be regulated through EASA environmental rules.

b)
The regional differences in Europe are much better handled and more effective for the protection of the environment when they are tailored by the regional level based on expert knowledge of the situation.

comment 762

comment by: *Light Aircraft Association of the Czech Republic*

a)
LAA CR understands that the European Commission wants to exclude small aerodromes from the applicability of the EASA rules. Therefore, we expect that these excluded small aerodromes will not be regulated through EASA environmental rules.

b)
The regional differences in Europe are much better handled and more effective for the protection of the environment when they are tailored by the regional level based on expert knowledge of the situation.

comment 776

comment by: *APAU*

a)
APAU understands that the European Commission wants to exclude small aerodromes from the applicability of the EASA rules. Therefore, we expect that these excluded small aerodromes will not be regulated through EASA environmental rules.

b)
The regional differences in Europe are much better handled and more effective for the protection of the environment when they are tailored by the regional level based on expert knowledge of the situation.

comment 794

comment by: *ECOGAS*

a) Small General Aviation airports are frequently areas of greenery and clean air in comparison to neighbouring roads and industrial sites. Any environmental regulation of airfields must be proportionate, with sensible de minimis levels. The de minimis levels contained in the proposals for aerodrome safety regulation did not seem very well thought through, and we await the outcome of the final document with interest.

b) No comment

comment 806 comment by: *Satu Routama*

2. a) No. Environmental impacts should not be regulated by EASA. The best knowledge in environmental issues at the local level is by the local authorities.
2. b) Yes. To understand the total environmental conditions all sources of noise and pollution should be taken into when planning land use. The local conditions are best known at the local level.

comment 812 comment by: *IACA International Air Carrier Association*

a) IACA does not agree that airport design and airport operations that are covered by safety regulation in the EASA system should also be regulated for their environmental impact through the EASA system IACA considers that EASA should not be granted competence in this matter. Environmental rules should be elaborated on a local, rather than a European level. For matters that relate to noise for instance, the "balanced approach" by definition refers a local management for mitigation. At most, EASA could be given a supervisory role for the implementation of the balanced approach.

b) IACA considers that a Regulation at European level that would deal with land-use is practically impossible, as local conditions and rules may vary considerably from one location to another. IACA therefore strongly urges to keep this matter within national member states' competence.

comment 820 comment by: *CAA FI*

Q2a:

So far, the FCAA has been satisfied with the current system as the national authorities have the best knowledge and experience in the local situation and in the best environmental protection within the framework of national environmental legislation.

Q2b:

Basically land use planning is a horizontal activity (at least in Finland) in which an appropriate balance between various activities and targets is aimed at. The airports are originally built out of urban structure in order to reduce air traffic noise and other environmental problems. However, as air traffic volumes are increasing and the municipalities tend to plan housing and other sensitive activities closer and closer to the vicinity of airports, air traffic noise problems may increase. Airport investments are long-standing investments, i.e. airports should have a certainty that there is a license to continue operation for decades ahead. Therefore, close collaboration between land use planning and aviation authorities as well as other relevant partners is needed in order to avoid environmental and other problems.

comment 825 comment by: *Munich Airport*

Firstly, it is important for safety to take priority on environmental issues. It is therefore important to ensure that safety requirements for aerodromes will take priority on environmental considerations.

We are concerned about the potential for a mandatory certification scheme for all aerodromes, regardless of whether there is an environmental issue or not. This would appear contrary to the ICAO "Balanced Approach" and associated European Directive, where the requirements to analyse options for noise mitigation should be considered only at airports where there is an identified noise problem. The individual, or a combination of, elements comprising the balanced approach should then be the subject of a cost benefit analysis, which should provide the basis for any decisions taken.

We believe that airport design and airport operations covered by EASA safety regulation should not be subject to further regulation by EASA in terms of their environmental impact. In Europe, there is a well-proven system of approval checks, impact balances and prevention/abatement legislation in place (e.g. airport approval procedures, noise abatement law, also various EU regulations). This system thoroughly considers all impacts of an airport's design and operations, be it noise, gaseous emissions, land use, ground water effects, waste water treatment or other environmental impacts. It must not be superseded or made more complicated by another layer of certification. On European and national level there are a lot of specific regulations for numerous environmental aspects. Most of these regulations are of general purpose and do not only governs aviation. As these regulations won't disestablished additional regulations have to be rejected. We believe that the current environmental regulations are sufficient.

b) The Agency is interested in knowing whether stakeholders agree that land use planning around aerodromes is better regulated at horizontal level, taking into account all sources of noise/pollution, rather than from an aviation perspective only.

As the European Union has no legal competence on land-use planning, it is difficult to see how EASA could be effective in this area. However, we would agree the principle of tackling all sources of noise/pollution at and around an airport, in a balanced way, and not concentrating on aircraft impacts alone.

comment

839

comment by: *Direction Générale de l'Aviation Civile*

Regarding point a, the French Civil Aviation administration does not agree that airport design and operations that might be covered by safety regulations in the EASA system should also be regulated for their environmental impact. Indeed, environmental issues in airport design and operations are much broader than might be covered by safety regulation and other rules already apply to these fields (primarily air and water) under other European Union regulation supervised by other European administrations. Moreover, it should be reminded, as stated previously, that priority shall be given to safety on an aerodrome, according notably to ICAO SARPS.

As regards other impacts outside air traffic itself (power generation, building design), the principle of subsidiarity should apply.

Regarding point b, the French Civil Aviation administration opinion is that land use planning is dependent on a much broader range of issues, and that regulating it from an aviation perspective only could be only partially sufficient.

Environmental issues should be dealt with through a global approach including the surroundings of the airports which can be also a source of air and water pollution. This is not in accordance with paragraphs 21 and 22 (part A) which

only deal with the air side.

comment 845

comment by: CAA-NL

a)

Position

The Netherlands considers it important for there to be a careful and explicit balance between environmental interests and those relating to safety and economics. The Netherlands is in favour of the scope for policy making being retained at national level, as local conditions sometimes require specific measures.

In addition, the Netherlands would like to keep the scope for national policy making within a European context, as already laid down in Directive 2002/30/EC, regarding noise-related operational restrictions.

Consideration

Replacing a carefully balanced system of environmental protection by a one-dimensional version determined centrally at EC level is not to be desired. Any EC environmental protection measures should allow for enough scope for measures designed to deal specifically with local circumstances (see the Alders recommendations), so that as much account can be taken as possible of situational aspects whenever various interests are under consideration.

b)

Position

With regard to spatial planning, the Netherlands believes that this should remain a matter of national competence.

comment 853

comment by: EUROPEAN REGIONS AIRLINE ASSOCIATION

a)

No. ERA has significant concerns over the expansion of the mandate of EASA to cover the mandatory certification for all airports regardless of environmental need. EASA should only be involvement at airports where there is an identified problem. Environmental impact should be regulated at local level and not at on an EU wide basis. There may be a role for EASA to ensure that the ICAO balanced

approached is being followed but it does not merit new rules.

b)

Regulating land use planning at European level is virtually impossible. Local conditions and regulations vary hugely. Consequently this question is not relevant. The only role EASA could play is to ensure that ICAO balanced approached is being followed but it does not merit new rules

comment 907

comment by: Dassault Aviation

If EASA is mandated to regulate environmental questions on aircraft in flight, it would seem logical to extend the coverage to regulation of airports to the same extent as safety. However, environmental impact of aerodromes is not strictly limited to aircraft related effects, and should be addressed on a more global level.

comment 958 comment by: AOPA-Sweden

2 a: Referring to the above written, the answer is no.

2 b: The answer here is yes, all sources of noise and pollution should be taken into account when planning an aerodrome. And this is already done so at many places in Europe where the environmental laws are developed properly.

comment 980 comment by: ACI EUROPE

Question 2 a)

ACI EUROPE is of the opinion that airport design and operations shall be regulated for their environmental impact outside the EASA system. To the extent that common (uniform) environmental rules are deemed appropriate for a specific issue and there is a relationship (possible synergy or conflict of interests) with areas to be covered in the future by safety regulation under the EASA system, the rulemaking process shall be closely coordinated with EASA and the responsible other organisations.

Question 2 b)

ACI EUROPE is of the opinion that land-use planning around aerodromes shall indeed be regulated taking into account all sources of noise by industry and transport (road and rail noise, as well as air transport). Consequently, it shall be regulated at horizontal level, outside the EASA system, since EASA will not regulate these other modes of transport and industry. However, the rulemaking process in that horizontal area, which is key to proper noise management at airports, is most often beyond the responsibility and competence of airport operators, thus raising a considerable amount of concerns. The proper way to address this issue (at horizontal level) is far from being implemented or achieved in most Member States at the moment.

Regarding gaseous emissions of air transport, there is currently a debate within the ICAO CAEP working arrangements whether or not land-use planning around airports shall be considered as one element of the "balanced approach", just the way it is for noise. ACI EUROPE's opinion on that is not final at this stage, but so far it appears that land-use planning cannot make a positive contribution to resolving gaseous emissions issues. For air traffic there is basically no strong relationship between the location of the pollutant (gaseous emissions) and the local or regional air quality problem (emissions). In any case, it strongly depends upon which pollutant is being considered. Therefore, it has not been demonstrated that regulation on land use planning through the EASA system could make a positive contribution towards this already complicated problem.

comment 986 comment by: MT-Propeller Entwicklung GmbH - DOA EASA 21J.020

We do not agree that airport design and airport operations shall not be regulated for their environmental impact through the EASA system. The current system should be retained because different member states have different requirements. A certain independence should be retained.

comment 1000 comment by: AEA

a)

Safety is the first priority. It is therefore important to ensure that safety

requirements for aerodromes will take priority over environmental considerations.

AEA is concerned about the potential for a mandatory certification scheme for all aerodromes, regardless of whether there is an environmental issue or not. This would be contrary to the ICAO "Balanced Approach" and associated European Directive, which state that options for noise mitigation should be considered only at airports

where there is an identified noise problem. Individual measures or a combination of elements comprising the Balanced Approach should then be the subject of a cost benefit analysis, which would provide the basis for any decisions taken.

A blanket approach, which is what the proposal seems to suggest, will not work given that every airport is different. In many Member States strict laws already apply for both noise and engine emissions produced by aircraft at airports and in the surrounding area. There are a number of very stringent local regulations in various fields at certain airports. To generalise such stringency across Europe would be wholly inappropriate and would have a detrimental effect on aviation. Additional regulations such as those mentioned in NPA 2008-15 will only serve to increase the complexity of these laws, while providing little or no added value (see also reply to Question 3).

However, if EASA is suggesting that it should regulate airports to make sure that they enforce the application of the Balanced Approach where necessary, then in principle we could support this.

b)

As the European Union has no legal competence on land-use planning, it is difficult to see how EASA could be effective in this area. However, AEA would support the principle of tackling all sources of noise/pollution at and around an airport in a balanced way, rather than concentrating solely on aircraft noise. This does not mean that the computation of aircraft noise should be mixed with other noise sources.

With regard to noise, AEA notes that there is currently no consistency across the various EU Member States, or even at the different airports within each State. It believes therefore that EASA could play an important role in rationalising the plethora of rules (local, regional, national and even EU) on noise and emissions regulation and restrictions at EU airports into a single framework. This would not only simplify the legal process but also serve to minimise market distortion. However, this would have to be managed on an airport-by-airport basis according to the principles of the ICAO 'Balanced Approach'.

comment 1018

comment by: *Environmental Court Vänersborg Sweden*

- a) Miljödomstolen anser inte att det är lämpligt att miljöpåverkan från flygplatser ingår i EASA-systemet med hänsyn till vad som ovan anförts. I vart fall kan det inte ersätta en individuell prövning, se ovan.
- b) Planering av markanvändning vid flygplatser bör ta hänsyn till all påverkan i omgivningen.

Translation by Centre de Traduction

- a) The Environmental Court does not consider it appropriate that the

environmental impact of airports be included in the EASA system with reference to the above. In any case, it cannot replace an individual inspection, see above.

- b) Land use planning around airports should take into account all impacts on the surrounding area.

**A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment
- Scope - Air traffic management (ATM) and air navigation services (ANS)**

p. 8

comment 9

comment by: *KLM*

24, 25

EASA has to promote the environmental friendly ways of air operations in total instead of putting restrictive regulations to ATM and ANS. The development and rapid implementation of ADS-B, GBAS and RNP and free flight are realistic environmental friendly ways to operate with deletion of routes based on ground facilities that are unnecessary prescriptive and burn much fuel while direct flights between A and B are possible and environmentally and economically required and possible.

EASA should push for those developments rather than putting restrictions on operations with regulations.

comment 25

comment by: *Royal Aeronautical Society*

In the interests of consistency, to exploit the potential for synergies and to facilitate proportional balance between safety and environmental protection, the design and operation of ATM and ANS already covered by safety regulation should also be regulated for their environmental impact through the EASA system.

comment 48

comment by: *Samuel WENGER*

From an environmental exposure point of view, the airport related traffic management and navigation settings (SID, STAR) are of much greater importance than 'enroute'. The responsibility for these settings shall therefore be part of the airport regulation, but they must be established in close cooperation with ATM/ANS, air operators and land use planners. The responsibility of ATM/ANS in this area is consecutive: organise the optimum traffic flow within these settings.

Outside the airport parameter (SID/STARs), ATM/ANS shall continue to guide and coordinate air traffic within dedicated airspaces. The best goal to achieve are direct flights with no detours or holdings, also from an environmental point of view. If environmentally justified restrictions are to be applied to certain airspaces, aircraft types or other, the task of ANS shall be to consult responsible bodies as required, but not to define the restrictions.

comment 60

comment by: *FRAPORT AG*

24. Fraport does not feel, that there is a need!

comment 61 comment by: *FRAPORT AG*
 25. Fraport does support this intention!

comment 157 comment by: *Aero-Club of Switzerland*
 Reducing congestion, optimising route networks, particularly adapted trajectories, words we have been hearing for a very long time now. Only in taking the last national boundary out of the system we will achieve progress in Europe.
 Justification: Many possibilities to use shorter trajectories are not used, especially on weekends, because ATM personnel does not want to use them because of the necessary mental adaptations. In this area a greater influence of the Agency is greatly welcome.
 Why does the author attack the open rotor technology? Cruise level noise heard on the surface of the earth cannot be an argument!
 Who will define the "sensitive areas"? Someone within the Agency? Local government? The population affected via a referendum? The 27 + 4 member states will for sure not accept a centralised regulation.
 Justification: The nearer the regulator is to the area concerned the better the solutions are.

comment 166 comment by: *KLM Engineering & Maintenance*
A.IV.24. It is imperative that ATM organisations deal with flight safety exclusively and not with more detailed flight operational issues as this will adversely affect flight safety.

comment 218 comment by: *jobeckers UECNA*
 In the past developments in the aircraft industry and air traffic were driven by economic rather ecologic factors. This is the main reason for the rapid increase in emissions from aircraft.
 Many inventions and product innovations to reduce emissions were not adopted for the above reason. EASA has the position to establish standards for the reduction and control of all emissions from air traffic. Effective technologies for the reduction of emissions must be implemented into the products, and not left off without sound reasons.

comment 263 comment by: *UK CAA*
Page No: 8
Paragraph No: 24
Comment:
 The argument that ATM and ANS need to be regulated environmentally by EASA is not clearly made here. SES II and SESAR both have a focus on environment and it is not clear what added value EASA oversight would bring, though it would certainly bring the risk of added regulatory costs.

SESAR will be considering a number of specific environmental approaches such as Environmental Management Systems and Collaborative Environmental Management, together with a range of subjects for guidance and best practice. The SESAR ATM Master Plan has its own "Environmental Road map" and a performance framework for environmental sustainability. It is not clear how EASA's proposals will be coordinated with these nor how EASA rules would be coordinated with SES Implementing rules for example, in order to ensure a synergy of rulemaking.

Justification:

The legislation proposed in this NPA should be developed in co-ordination with the SES legislation, and the NPA should clarify this relationship. The NPA does not make clear the relationship between the Environmental ERs and SESAR.

The suggestion of adapting trajectories to avoid affecting the ozone layer or flying over sensitive areas is not currently realistic. The current ATM/ANS system has neither the capacity nor the flexibility to make the suggestion of adapting trajectories to avoid affecting the ozone layer or flying over sensitive areas a realistic prospect at present.

It does not follow that because aircraft are audible from the ground that environmental regulation of ATM and ANS is necessary as the NPA argues or even desirable.

comment

264

comment by: UK CAA

Page No: 8

Paragraph No: 25

Comment:

The UK CAA does not agree that EASA should necessarily regulate ATM and ANS for environment matter and would like to see a full impact assessment conducted prior to this discussion.

Justification:

The NPA should explain how the costs that would be imposed on regulatory bodies and ATM or ANS providers would be assessed. There is no mention of a cost or an impact assessment.

Notwithstanding the suggestion of possible synergies between safety and environmental regulation, there are likely to be additional costs to regulatory bodies and service providers.

comment

407

comment by: Light Aircraft Association

Paragraphs 24 & 25

Again is focussed on the Commercial Air Traffic with little or no consideration for GA!

Optimising Commercial Air Transport routes may adversely affect the free use of General Aviation aircraft; all users of the the skies need to be consulted.

Any further attempts to degrade the free movement of GA aircraft in the remaining areas of uncontrolled airspace will be vigorously opposed!

comment 477 comment by: *General Aviation Manufacturers Association (GAMA)*

The discussion in this section raises concerns. For example, the NPA accurately states that "the aviation community is expecting much from the SESAR project's contribution to reducing fuel consumption" but goes on to say that further measures might be put in place to affect trajectories in order "to avoid unnecessarily affecting the ozone layer or flying over sensitive areas; this may be necessary for supersonic flight or aircraft using open rotors."

GAMA would note that there are already a number of airspace exclusion zones for a variety of reasons, as well as noise-specific measures. In addition, the EU Noise Directive (EC 2002/49) already sets out a process (the balanced approach) to deal with noise issues.

The SESAR project and Single Sky initiative promise to bring about a welcome rationalization of the ATM system in Europe, with expected significant environmental benefits. The highest priority of the ATM system should be aviation safety. It would be next to impossible to design a rule that could properly account for all of the variables that might affect air traffic patterns on a given day or in a given sector.

The great benefit of air traffic modernization will be that trajectories should be as efficient (and therefore as environmentally beneficial) as possible - any additional requirements can introduce potential unintended consequences. For example, diverting an aircraft to avoid "sensitive areas" (recalling that there are already restrictions in place that do this to some extent) might save one area from marginal exposure to additional noise, for example, but could require the aircraft to carry extra fuel to travel a longer route, with a negative impact from increased emissions of CO₂, not to mention additional cost and possible increased congestion in the air.

comment 536 comment by: *Deutscher Aero Club e.V. (DAeC)*

EASA obviously sees „noise" and „emissions" as the only relevant environmental dimensions of air traffic. This is not comprehensive. Although it might not be within the Agency's scope, we find it important to mention and to care about.

Not only humans are sensitive to air traffic, but animals too. Major problems with air traffic exist and rise continuously with disturbance effects caused by low flying aircraft on endangered and protected animals and their habitats. Noise is only partly responsible for such disturbance effects, they are mainly caused by optical/visual sources.

All types of aircraft can cause such disturbance effects, if they fly too low over such animals/their habitats = „sensitive areas". They can be avoided by voluntary (Germany) and/or, in worst case, legal (partly in i.e. in France, Austria, Italy etc.) restriction of minimum flight altitudes above ground in certain sensitive areas relevant for nature conservation.

Severe disturbance effects on certain animal species and habitats are forbidden according to national laws (i.e. Germany) and especially by European directives 79/409/EWG (birds directive) and 92/43/EWG (FFH).

Proposal:

Include such disturbance effects caused by aircraft into relevant environmental

dimensions of air traffic and care about as appropriate (see later).

Legal restrictions in order to avoid such disturbance for example in France, Austria or Italy have led to an increase of conflicts instead of problem solutions (low or no acceptance of such regulations within pilots, mainly caused by lack of information and participation within process of rulemaking). Voluntary means as in Germany (ABAs - Aircraft relevant Bird Areas) already proved to be by far more acceptable and effective.

A European wide system of identification of sensitive areas could help to solve conflicts in some countries and provide a sound information legal basis to diminish the disturbance problems. Where possible, unaccepted legal restrictions - which moreover are difficult to monitor - could be withdrawn.

comment 611

comment by: *Walter Gessky*

Item 26:

It has to be verified that the protection of crew and passengers against environmental impact from ozone concentration or cosmic radiation are adequately taken into consideration. This might have an impact to flight profiles and the aircraft configuration.

comment 623

comment by: *BALPA*

Para 24 - Open Skies in theory was designed to put more aircraft into the airspace and offer direct routings to reduce flying time. Placing restrictions on "sensitive areas" will effectively reduce those improvements.

comment 660

comment by: *NATS*

Paragraph 24: NATS wishes to point out that there are already many restrictions on aircraft routings/trajectories. It is not necessarily feasible to consider imposing further restrictions at this time and certainly not without considerable further development and assessment work.

Paragraph 25: This might be appropriate in the future (although a full impact assessment, including cost implications, should be conducted before any decision is taken) but at present the Agency needs to consolidate its technical expertise in ATM/ANS and Aerodrome Safety.

comment 706

comment by: *Department for Transport*

It is noted that the Single European Sky (SES) Package is planned to introduce a system of performance regulation through the setting of binding targets which will likely include the environment as a performance area. Question (3) asks if air operations should be subject to common rules under the EASA system.

It is not clear how EASA's proposals will be co-ordinated with the SES and if they would come in addition following the SES or in parallel with the SES. This represents a real cause for confusion and or duplication and EASA's involvement may not be helpful to the smooth development and introduction of the SES package.

comment 854 comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*

Paragraph 24

ERA is concerned with the discussions in this paragraph on the trajectories. ERA believes that they should not be used to the detriment of the safety of the flight. The approach put forward on ATM is naïve and ill informed. The SESAR programme and Single Sky projects are well advanced at both an operational and regulatory level. No further regulation is required.

comment 897 comment by: *Cathay Pacific Airways*

Paragraph 24

This paragraph suggests that flights should be restricted to avoid affecting the ozone layer and avoid noise being transmitted to the ground from open rotors. The open rotor, otherwise known as the un-ducted fan, is currently subject to heavy research by a major European air line manufacturer as a possible retrofit for a very common use airframe. If adopted this technology would provide a step change improvement in fuel consumption. Limiting areas where these so-equipped aircraft may fly and the levels at which they may operate would negate a large proportion of possible savings from the SESAR project..

comment 916 comment by: *Dassault Aviation*

Paragraph 24

SESAR will take into account pollution (not only to reduce CO2 but also the other Green House Gaseous) and noise.

Adaptation of trajectories for supersonic flights within only purpose to reduce the cruise noise and not sonic boom for supersonic aircraft could be the end of the projects. This position is against all the works of ICAO/CAEP.

comment 948 comment by: *Dassault Aviation*

Dassault Aviation text proposals are marked in **bold and highlighted** or crossed out on the initial EASA text

One of the objectives of the Community when establishing the Single European Sky was to also contribute to the sustainable development of civil aviation by reducing congestion and optimising route networks. The aviation community is expecting much from the SESAR project's contribution to reducing fuel consumption **pollutant gaseous and particles contributing in the Local Air Quality and Green House effects. SESAR' project will be a contributing to noise abatement procedures (departure and arrival). These are, however, not the only aspects under which the contribution of ATM and ANS to environment sustainability shall be assessed.** Trajectories can in particular be adapted to avoid unnecessarily affecting the ozone layer or flying over sensitive areas; this may be necessary for supersonic flight or aircraft using open rotors, which cruise noise may be audible from the ground. It is therefore necessary that a proper regulation of the environmental impact of ATM and ANS be put in place.

comment 1001

comment by: AEA

t is imperative that ATM organisations deal exclusively with flight safety and not with more detailed flight operational issues, as this will adversely affect flight safety.

**A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment
- Scope - Air operations**

p. 8

comment 10

comment by: KLM

26

Operators have their own safety responsibility and it is also in their own interest to keep their aircraft airworthy, as these are their main asset to earn money.

Regulations from EASA are an overkill and will limit air operations and that is not wanted.

EASA should enable environmental operations as soon as possible, see also above ADS-B, RNP and free flight, instead of restrict operations with regulations. Not all operators are capable of the most advanced features but CDA and CDFA can be implemented easily.

It has to be noted that aviation emissions only contribute 1 to 3 percent of the total and that road traffic makes up the most of emission and air pollution.

comment 11

comment by: KLM

27

The restriction to carry no more economical extra fuel is a heavy commercial issue and shall not be regulated by EASA. This can only be achieved by lowering the fuel prices overall and take away the taxes on fuel and eco-tax invented by governments and having the fuel price everywhere in Europe the same.

comment 26

comment by: Royal Aeronautical Society

In the interests of consistency, to exploit the potential for synergies and to facilitate proportional balance between safety and environmental protection, air operations already covered by safety regulation system should also be regulated for their environmental impact through the EASA system.

It is essential that the principles published by ICAO as Standards and Recommended Practices that currently provide a proportional balance between safety and environmental protection (such as in PANS OPS Volume I Flight Procedures and PANS ATM Chapter 7) are not degraded by rules developed by EASA.

For the avoidance of doubt, the principle that a pilot-in-command prompted by safety concerns can override procedures relating to environmental considerations must be enshrined within the appropriate essential requirements and reflected in the implementing rules. (For example, see PANS ATM Chapter 7 paragraph 7.2.5)

- comment 49 comment by: *Samuel WENGER*
- Environmentally safe aircraft operations are mainly a matter of education and training of persons involved. The corresponding EASA measures are proposed in the following §28, Environmental awareness. I agree that operating rules shall also contain the environment protection responsibility of flight crews and other involved personnel, but I disagree with concrete prohibitions as cited in the NPA. The operator shall be responsible for using or rejecting any mitigation procedure, unless a procedure is prescribed in the manufacturer's Aircraft Flight Manual or an airport operating limitation. Protection of the environment may not have priority over safety, and it is but one of the three pillars of sustainability (environment, economy, society).
- comment 62 comment by: *FRAPORT AG*
27. In general Fraport does support this intention! However, the example shows the wrong way of interaction. No airline would carry so much fuel on board that the administrative overhead would pay off.
- comment 89 comment by: *Lars Hjelmberg*
- The amount of fuel an aircraft carries reflects the costs of the fuel which has to be carried and the necessity as decided by the captain for flight safety. If EASA believes in market economy then we wonder how this item at all can be discussed.....
- comment 122 comment by: *Aero-Club of Switzerland*
- 26: This level of regulation has to be fixed locally, regionally or by the member states, in no case by the EU/EC.
- Justification: Only locally the needed knowledge is available.
- 27: This idea is unacceptable.
- Justification: It is the pilot in command who decides how much fuel he/she wants on board the aircraft, not the decision of a bureaucratic entity. In order to be able to pay all kinds of fees, everyone has to buy everything at the best possible rates and tariffs.
- comment 167 comment by: *KLM Engineering & Maintenance*
- A.IV.27.** Tankering: EASA proposed to prohibit the carriage of surplus fuel with the sole intent to profit from lower fuel prices. This proposal can only be accepted if fuel prices are equal for all EASA members, to prevent disruption of the level playing field.
- comment 219 comment by: *jobeckers UECNA*
- A major problem for the introduction of noise abatement procedures is the lack of knowledge of environmental impacts by ATM /ANS personnel. There is also a lack of procedures to enforce noise abatement standards and procedures (like a quality assurance system). At this time, ATM/ANS authorities do not have the

obligation to implement noise abatement procedures, which are recommended / demanded by the "aircraft noise commissions" at airports

The same lack of knowledge of environmental impacts by the flight operations exists with the aircraft pilots.

I

comment 267

comment by: UK CAA

Page No: 8
Paragraph No: 26
Comment:

The UK CAA does not agree that it necessary to better regulate the environmental dimension of air operations and to develop dedicated requirements addressed to air operators and flight crews. The NPA suggests that low noise procedures for parachute dropping or banner towing should be considered, but does not explain why these should be needed for these specialised activities, or what the balance of costs and benefits might be. The NPA should explain why specific requirements might be considered necessary for parachute dropping or banner towing.

Justification:

It is not clear that the environmental dimension of air operations needs to be regulated by EASA. Best practice solutions may be much more effective in many areas. Adapting procedures to reduce the environmental impact of aviation will impose costs on aircraft operators. There is no mention of cost or an impact assessment in relation to aircraft operators.

comment 268

comment by: UK CAA

Page No: 8
Paragraph No: 27
Comment:

The UK CAA does not agree that EASA should necessarily regulate the environmental impact of air operations or that there are synergies with safety. The example given on "the prohibition of carrying more fuel than needed only to profit from price differences between different regions" is a good example of the potential for conflict between safety and the environment. For very sound and well-established safety reasons it is for the pilot in command to decide how much fuel to carry dependent on the individual circumstance of the flight.

Justification:

We consider that "the prohibition of carrying more fuel than needed only to profit from price" would be difficult issue to regulate and could raise safety issues. Fuel tankering is undertaken for many reasons other than purely cost. For example fuel may need to be uplifted at a different aerodrome because it is of an unsuitable quality, or because of supply issues. The cost of carrying the extra weight would normally overcome any price saving. A prohibition on 'tankering' is likely to prove aspirational rather than practical. In practice it would be difficult to prove whether fuel was carried in order to 'profit from price differences between different regions' or for other reasons, e.g. scarcity of fuel at a certain airport.

The implication is that upper limits could be mandated on the fuel to be carried by an aircraft. Following a number of fatal accidents caused by aircraft running

out of fuel, and incidents of "low fuel emergencies", the regulatory authorities placed greater emphasis on ensuring that the fuel carried is sufficient for the planned route plus the effects of adverse weather, unplanned diversion, air traffic delays, etc. Indeed, one of the areas examined as part of ICAO SAFA inspections is the adequacy of fuel use planning. This is entirely legitimate to protect safety. Conversely, any attempt by regulators to limit the excess fuel to be carried to cover such contingencies would be counter to the safety objectives and could expose the regulators to litigation following an accident caused by lack of fuel. The proposal is directly contrary to safety objectives and would increase the regulators exposure to litigation.

comment 478 comment by: *General Aviation Manufacturers Association (GAMA)*

The NPA document also notes that "synergies" could be created by mandating, for example, the "prohibition of carrying more fuel than needed only to profit from price differences between different regions as this practice leads to creating more emissions than necessary." This suggests that EASA favors an environmental regulation to fix an economic problem.

This also seems to be a solution in search of a problem. This is never a good idea and would introduce new costs for operators who might tanker fuel for a number of reasons, including scheduling priorities and contractual obligations, among others. In addition, the text offers no evidence that this is a significant issue. Carrying extra fuel entails a weight penalty, which translates to added operating cost. Operators therefore have every incentive to reduce weight. If there are disparities in the price of fuel across the internal market, they are due to a combination of other factors, including transportation costs and the fiscal policies of member states. If member states' fiscal policies create distortions in the internal market, they should be addressed via fiscal policy, not aviation regulations.

comment 484 comment by: *Fridrich Jan*

Operations for sports and recreational purposes is considered environmentally friendlier than othe GA and air transport activities, therefore should be exempted from EASA environmental rules. Additional regulations will lead to additional costs and this will not fulfill the EU aim to increase the number of pilots.

comment 496 comment by: *Air Transport Association of America, Inc. (ATA)*

Section 4.c.1, requiring that aircraft be operated so as to "minimize as much as possible the impact of its noise, its emissions and any subsequent environmental impacts" is unintelligible and potentially contradictory. Some operations undertaken to minimize noise could increase emissions and vice versa. It would also be improper for EASA to look to this provision as a basis for regulating volumes of fuel carried by aircraft (p. 6, para. 27). Airlines have powerful economic incentives to minimize their use of fuel, and emissions are correspondingly minimized. Also, airlines make fueling decisions based on a range of safety considerations including operational factors, weather, and ATC issues, and authorize their pilots to make appropriate judgments for specific flights. The Chicago Convention would prohibit EASA regulation of any fueling done outside EU airspace, and of uplift of fuel and fuel quantities even within the EU for international flights.

Section 4.c.2 providing that a flight "must not be continued" unless "known conditions continue to be at least equivalent" to the requirements addressed in the sections on flight preparation (4.b) is unreasonable, unworkable and, taken to its logical extreme, could strangle commercial aviation, harming the public and both domestic and international commerce. Would it require a flight to land at the nearest airport rather than divert to fly around a weather system? Again, any such requirement would be unenforceable to ATA carriers outside EU airspace under the Chicago Convention.

comment 531

comment by: *Light Aircraft Association*

Under paragraph 26 the agency makes the statement that more regulation is necessary regarding air operators but unfairly picks on two aspects of GA as examples, both of which are already very aware of having to operate in the most environmental manner possible. Operators of GA operations requiring consecutive take offs and landings over a relatively short period of time such as glider towing, parachute dropping and banner towing are very aware of the potential impact of their operations on the local community and adapt their operations to reduce the effect as much as possible. Regulation would not change this but could restrict any advances in technique and would therefore stifle opportunities.

Paragraph 27 purports to control free enterprise by forcing commercial carriers to buy expensive fuel in one region on the grounds of environmental requirements. Carriers will use the best deals available and if one region is overpriced then it should be for those regions to compete by reducing fuel prices rather than everyone suffering from an unworkable law. Again no examples are provided to prove the statement that carrying more fuel than is needed is necessarily for price reasons. As aircraft become more fuel efficient they should be able to take advantage of this in their operations.

Regarding GA, pilots will take advantage of good fuel prices whether from different airfields within a country or by flying across a border. Again it is up to the regions taxation and the dealer's profits which should control the sale of fuel and not any attempt to regulate for spurious environmental reasons. If an attempt were to be made to improve the environmental aspects then it should be for the governments to control taxes and market forces the prices.

Attempts to regulate GA flights for whatever reason must be opposed. GA aircraft need the freedom to operate according to the requirements of the flight and within the bounds of the aircrafts capabilities. Any attempt to control GA operations in the manner suggested will be vehemently opposed!

comment 538

comment by: *Deutscher Aero Club e.V. (DAeC)*

See comment 536

Include the sensitive areas-strategy into air operations considerations. Avoid additional legal regulations, but support voluntary solutions (self-responsibility of EU-citizens!)

comment 624 comment by: *BALPA*

Para 27 - It is the pilot in command's responsibility to decide upon his fuel requirements based on the weather and possible diversions. This paragraph effectively forbids tankering of fuel. This could encourage certain countries to charge more for their fuel knowing that they have a captive audience. The action of tankering encourages competition in fuel rates in certain respects.

comment 661 comment by: *NATS*

Paragraph 26: The Agency therefore considers it necessary to better regulate the environmental dimension of air operations and to develop dedicated requirements addressed to air operators and flight crews. An example would be the use of low noise procedures for parachute dropping or banner towing. **NATS is unclear why these specific examples have been chosen as worthy of particular reference.**

Paragraph 27: It is the pilot in command's responsibility to determine the necessary quantity of fuel to be carried. NATS therefore wishes to point out that again this is an area of potential regulatory conflict and as always safety considerations must take priority.

comment 707 comment by: *Department for Transport*

In this content an example given is a prohibition of carrying more fuel than is needed. There is a minimum fuel load carried for safety considerations and we presume that this would be unaffected. There could be scope for research and best practice guidance setting out the circumstances for carrying the minimum amount above this safety limit in business as usual conditions.

However, we feel it would be difficult and undesirable to regulate on this aspect. It would remove market incentives for the efficient distribution of fuel to airports and competitive pricing between airports. A monopoly position would be held whereas currently any premium is limited to the marginal cost of tankering.

It is not unusual for there to be an airport somewhere that has a short term fuel supply volume or quality problems. This can be easily and safely managed through a little additional tankering. To prohibit such a practice would seriously affect the operation of some airports, particularly remote ones. This example, of a solution, is unworkable and demonstrates the need for smarter solutions better aligned to how these aircraft and airports could operate.

Stakeholders were firmly of the opinion that mitigation factors and solutions should be fit for purpose and questioned the utility of the example issues and solutions.

comment 736 comment by: *Rolls-Royce plc [DGJ]*

In general, the day-to-day activities related to aircraft operations fall outside Rolls-Royce's direct involvement so we are not well placed to comment. However, it is our understanding that the effort required to regulate aircraft operational safety in today's system is already burdensome. To add to this task (and, by inference, diminish the resource available to regulate safety) by asking the same system to consider such economic issues would be wholly

inappropriate without a significant change in resourcing.

In the particular example given, the proposal to prohibit the carriage of extra fuel might translate into pressure on crews to carry the minimum regulatory fuel. Whilst paragraph 37 states that the environmental impact requirements would not be incompatible with safety related requirements, this is an example of how increasing the emphasis on environmental impact might encourage an undesirable (or even unacceptable) reduction in safety margin. There must be clear distinction between Environmental regulation and Safety regulation, with the clear position made that Safety compliance is "essential".

comment 756

comment by: *Europe Air Sports PM*

Operations for sports and recreational purposes is considered environmentally friendlier than othe GA and air transport activities, therefore should be exempted from EASA environmental rules. Additional regulations will lead to additional costs and this will not fulfill the EU aim to increase the number of pilots.

comment 763

comment by: *Light Aircraft Association of the Czech Republic*

Operations for sports and recreational purposes is considered environmentally friendlier than othe GA and air transport activities, therefore should be exempted from EASA environmental rules. Additional regulations will lead to additional costs and this will not fulfill the EU aim to increase the number of pilots.

comment 775

comment by: *APAU*

Additional regulations will lead to additional costs and this will not fulfill the EU aim to increase the number of pilots.

comment 795

comment by: *ECOGAS*

EASA has many more pressing priorities than the setting of noise standards for banner towing and parachute dropping. The rulemaking programme is already far behind schedule, with no sign of amelioration in sight.

A prohibition on tankering would be a restraint of competition, since Memembr States would be able to set fuel prices without the constraints inherent in a free market. Carrying excess fuel is not desireable, but the practice would cease if pricing was harmonised within Europe. This paragraph introduces the question of value per unit of pollution, which is something ECOGAS is interested in discussing further. We would argue that the value of transporting someone en route to a weekend stag party is no less wasteful than tankering excess fuel. Low cost airlines are being incentivised by other environmental legislation, eg EU ETS, to fill aircraft with low-economic-value passengers in order to qualify for free emissions permits. This is clearly perverse and to be avoided in any additional EASA legislation. Any such legislation would have to be clearly of benefit to operators and not adding to the economic burden of EU ETS and other national carbon other 'environmental' taxes.

comment 864 comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*

Paragraph 26

ERA suggests the replacement of the word "needed" with the word "desirable" in line 4 of paragraph 26.

Paragraph 27

ERA is concerned with the statement in paragraph 27 which states "An example could be the prohibition of carrying more fuel than needed only to profit from price differences between different regions as this practice leads to creating more emissions than necessary". Development of this idea will lead to an increase in costs to operators and is ultimately anti-competitive.

comment 898 comment by: *Cathay Pacific Airways*

Paragraph 27

This paragraph suggests, but does not define, synergies. In addition, it also states that airlines tanker fuel for profit, this is false. The only reason airlines tanker fuel is cost avoidance due to large differentials in fuel prices. The price differentials are normally caused by local government policies. This is what needs to be addressed, as if there were no differentials (which are in most cases substantial) then airlines would not tanker fuel. By prohibiting tankering, the result will be encouragement to charge more. Currently the only mechanism keeping the differential in-check is the ability to tanker and consequently impact the local demand and therefore price.

comment 917 comment by: *Dassault Aviation*

Paragraph 26

Suppress examples

Paragraph 27

Being able to land in small airports, perform a quick turn around without refueling, pick up passengers and continue the trip is an essential operational characteristic of business aircraft that saves time and money. Their MLW are designed accordingly to be able to land with close to full tanks. Preventing the carriage of more fuel than strictly needed for a given trip segment would unnecessarily negate a competitive trait of these aircraft. Enforcement of this new requirement would have a significant effect on efficiency, and aircraft design would have to reflect the new trade off to reduce MLW.

Suppress examples

comment 949 comment by: *Dassault Aviation*

26

Safety regulation relies heavily on air operators to take measures to ensure that flights are conducted in accordance with the appropriate requirements and that staff involved in operations are well trained and keep current their ability. In the same manner procedures can be used to reduce the environmental impact of aviation, such as adapting the flight profile and the aircraft configuration wherever needed and possible without affecting flight safety. The Agency therefore considers it necessary to better regulate the environmental dimension of air operations and to develop dedicated requirements addressed to air operators and flight crews. ~~An example would be the use of low noise procedures for parachute dropping or banner towing.~~

27

As the EASA system will cover the safety regulation of air operations, synergies would be created if it addressed also at the same time their environmental impact. The Agency envisages therefore proposing extending the EASA system to the environmental

regulation of air operations. This would imply that organisations involved in the operation of aircraft would also be subject to common rules, as appropriate to implement the applicable essential requirements. ~~An example could be the prohibition of carrying more fuel than needed only to profit from price differences between different regions as this practice leads to creating more emissions than necessary.~~

comment 1002

comment by: AEA

Tankering: EASA proposes to prohibit the carriage of surplus fuel in cases where the sole intent is to profit from lower fuel prices. This proposal can only be accepted if fuel prices are identical in all EASA Member States, to prevent disruption of the level playing field.

**A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment
- Scope - Environmental awareness of persons active in the aviation system**

p. 9

comment 27

comment by: Royal Aeronautical Society

The proposal that the EASA system should be extended to include the environmental regulation of licensing of pilots, air traffic controllers and maintenance engineers is not supported on the grounds that:

a) The subject does not need to be managed in such a heavy-handed manner: knowledge concerning environmental considerations is not on a par with the knowledge, skills and competency associated with safety-critical activities undertaken by licensed personnel; and,

b) The training of all personnel who are active in the aviation system (both licensed and un-licensed practitioners) in environmental considerations should be delivered by common rules on professional competence schemes by the organisations employing them and form part of their approval process where such a process exists.

comment 63

comment by: FRAPORT AG

28. Fraport does support this intention! It's the intention of European airlines already to fly in an environmental friendly way, otherwise airports have already installed charging systems to "punish" them.

comment 123

comment by: Aero-Club of Switzerland

28: Perfectly right! But write "It is therefore appropriate... And please go directly to the ANSP which do not use direct routes which are available on weekends because their air traffic controllers do not like to switch to something new.

comment 168

comment by: *KLM Engineering & Maintenance*

A.IV.28. The NPA does not provide any evidence that maintenance personnel can significantly influence their impact on the environment during EASA Part 145 regulated activities. As Part 145 activities of maintenance personnel are strictly limited to following approved maintenance data and instructions issued by the (S)TC holder and/or Part 21 design organization, they have no freedom to affect the environmental impact of their activities. In other words; the environmental impact of maintenance activities is fully determined by the maintenance data produced by (S)TC holders and Part 21 DO's. It seems that the restrictions of Part 145 on the activities by maintenance personnel are again overlooked, similarly as in the recent Fuel Tank Safety AMC's.

Consequently, any requirement to educate maintenance personnel on environmental issues can and will not result in any change in the activities of maintenance personnel, but will result in considerable cost for training, without any demonstrable benefits to the environment.

Alternatively, any non-maintenance (non-Part 145) activities which could have an environmental impact and are performed by Part 145 personnel, are not governed by Part 145 and can therefore by definition not be regulated by additions to Part 145 or its GM.

In view of the above, it is our opinion that environmental regulations can not be part of licensing or training requirements for maintenance personnel.

comment 220

comment by: *jobeckers UECNA*

Aircraft noise is a complex subject. Members of "aircraft noise commissions" should receive an adequate training on the sources of aircraft noise, its spreading, and measures to reduce the exposure of people to aircraft noise. This requirement shall be addressed by the national legislation.

comment 269

comment by: *UK CAA*

Page No: 9
Paragraph No: 28
Comment:

It is not clear that environmental awareness of people working in aviation needs to be regulated by EASA.

The expression 'persons' active in the aviation system' needs to be more precisely defined.

Justification:

More flexible, local solutions may be more effective and enforceable. Proposals to extend the EASA system to the environmental regulation of the licensing of pilots and air traffic controllers could present a conflict of interests, as placing environmental obligations on aircrew and ATC could be at variance to safety. The extension of the content of training programmes to consider environmental issues in more detail could have considerable time and cost implications.

Pilots, air traffic controllers and maintenance engineers are clearly defined professional groups. However 'any other person active in the aviation system whose actions can have a significant effect on the noise exposure on the

ground, the quantity of the emissions emitted and the subsequent environmental impact' has very wide and rather vague applicability. It could for example include airline accountants making financial decisions, and ground staff at aerodromes, as well as certain regulatory staff.

comment 302 comment by: *Luftfahrt-Bundesamt*
28.
The LBA has no comments and supports the proposal.

comment 447 comment by: *Light Aircraft Association*

Environmental Awareness of persons active in the aviation system

Paragraph 28 Training in environmental awareness

If the intention is to add a line item to the PPL and the LAE syllabi, then it would seem reasonable, but if the intention is to extensively train everyone in the industry from dispatchers, ATC and approval bodies through to aircraft owners and airstrip owners, then that would be far too onerous.

Response from the Vintage Aircraft Club

Whilst this would appear to be a good way forward, it really only applies to CAT. The operator of a simple vintage aircraft would need to know very little about the environmental impact of their machine as they could do little or nothing to change it. Operating a glider has no impact, rather the opposite in that gliding is inherently environmentally superb already.

comment 479 comment by: *General Aviation Manufacturers Association (GAMA)*

With regard to the "environmental awareness" of personnel, again it seems to be a solution in search of a problem. It is not clear from the discussion in paragraph 28 what would be the objective of including "environmental knowledge requirements" in the "theoretical training" of certain personnel such as pilots, air traffic controllers and maintenance engineers.

Individuals engaged in aviation activities that require a license are certified by virtue of their license to have shown themselves able to operate competently and safely within their specified profession.

These individuals should be able to demonstrate only that they are capable of flying an aircraft, for example, safely and in accord with all the applicable rules. To layer on a vague educational requirement of "environmental knowledge" would make an already rigorous licensing process based on safety principles even more complex and costly, for the equally vague objective of an ill-defined level of environmental awareness.

comment 539 comment by: *Deutscher Aero Club e.V. (DAeC)*

Environmental protection already is partly included in German pilot licensing (Para- and hanggliding) and is in preparation for all types of licenses used by air sports enthusiasts. Sound education materials on "air traffic and nature conservation" will be available in early 2009 for powered and unpowered flying, model aircraft, ballooning and water flying.

comment 625 comment by: *BALPA*

Para 28 - We are all commercially aware of the impact of the fuel prices and do not consider there is a need or for it to be appropriate for this to be tested at exam level.

comment 663 comment by: *NATS*

Paragraph 28. The acts of certain people in the aviation system can significantly influence the environmental impact of aviation. It might be therefore appropriate to include environmental knowledge requirements in their theoretical training. However, it is not considered necessary to address practical skills as the safety regulations can be considered as sufficient to provide for a level of skill that is adequate for any environmentally related activity. The Agency envisages therefore proposing extending the EASA system to the environmental regulation of the licensing of pilots, air traffic controllers and maintenance engineers. **NATS requests the Agency to confirm that "maintenance engineers" in this context refers only to aircraft maintenance engineers, as well as the training of any other person active in the aviation system whose actions can have a significant effect on the noise exposure on the ground, the quantity of the emissions emitted and the subsequent environmental impact. NATS accepts and supports the principle that staff in non-operational roles should be environmentally aware but not that this should be subject to formal regulatory requirements or oversight.**

comment 735 comment by: *Rolls-Royce plc [DGJ]*

In general, the day-to-day activities related to aircraft operations fall outside Rolls-Royce's direct involvement so we are not well placed to comment. However, we would urge that care be taken to ensure that any new requirements placed on pilots and air traffic controllers (for example) do not inadvertently diminish their real-time attention to flight safety.

comment 865 comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*

It is unclear who the 'certain people' are who are defined in this paragraph? Examples must be provided. In addition, who will pay for this training? Maintenance personnel are already covered by EASA rules. (Part 145, Part 147 and Part 66) EASA cannot become part of the licensing and training of maintenance personnel as this would lead to a considerable increases in costs without any demonstrable environmental benefit.

comment 1003 comment by: *AEA*

NPA 2008-15 does not provide any evidence that EASA Part 145-regulated activities carried out by maintenance personnel have a significant on impact on the environment, as these activities are strictly limited to following approved maintenance data and instructions issued by the (S)TC holder and/or Part 21 design organization. In other words, the environmental impact of maintenance activities is fully determined by the maintenance data produced by (S)TC holders and Part 21 DO's. It seems that the restrictions imposed by Part 145 on the activities of maintenance personnel have again been overlooked, as they were in the recent Fuel Tank Safety AMC's.

Consequently, any requirement to educate maintenance personnel on environmental issues will not result in any changes to the activities of maintenance personnel, but it will result in considerable training costs, without any demonstrable benefits to the environment. Alternatively, any non-maintenance (non-Part 145) activities which could have an environmental impact, and which are performed by Part 145 personnel, are not governed by Part 145. They therefore cannot be regulated by additions to Part 145 or its GM.

In light of the above, AEA is of the opinion that environmental regulations cannot be part of licensing or training requirements for maintenance personnel.

**A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment
- Scope - Aeronautical products - Operating restrictions**

p. 9

comment 64 comment by: *FRAPORT AG*

29. If there are indications, that rulemaking costs will be reduced, Fraport will fully support this intention, yet however regulations for airports are already established where they make sense and are applicable.

comment 159 comment by: *Aero-Club of Switzerland*

If something already is regulated by the Members States the Agency must not duplicate these efforts. Up to now, all centralisation measures were followed by cost increases and the "level playing field" will never be found or established by centralised action. What the Agency can do is to dicatate to the Member States the regulations to be followed, i. e. to apply the rules of the Agency and not the rules of ICAO where no longer applicable.

How large the Agency thinks it will be in 20 years?

comment 221 comment by: *jobeckers UECNA*

Noise-related operating restrictions - the forth element of the "Balanced Approach" - are rarely applied until now. The "popular" remedy of excess noise levels is measures for passive noise reduction on buildings, or none.

We suggest that EASA sets appropriate standards for noise protection outside and inside of buildings (depending on its location and usage), which include the enforcement of these standards.

comment 270 comment by: *UK CAA*

Page No: 9
Paragraph No: 29
Comment:

We do not support the assumption that synergies could be created if the regulation of restrictions for environmental protection purposes were transferred to the EASA system. The NPA does not explain how transferring environmental protection to the EASA system will contribute to a level playing field'. It is unlikely to enhance competition between EU airports, or reduce regulatory burdens. We do not agree that EASA should necessarily regulate

environmental aspects of aerodromes and air operators and believe that a full impact assessment is necessary before agreeing that there are synergies in transferring the regulation.

Justification:

Directive 2002/30/EC (on the establishment of rules and procedures with regard to the introduction of noise-related operating restrictions at Community airports) has already been transposed into national legislation. There is no obvious benefit in operating restrictions being subject to common rules under the EASA system when the EC has already laid out common rules in the directive and the system appears to work well.

The claim that synergies would be created if EASA addressed the safety dimension of aerodrome regulation at the same time as the environmental aspects is unsubstantiated and ignores the equal scope for the creation of conflicts between environmental and safety regulation. The safety of these operations must take primacy over environmental issues.

comment 271

comment by: UK CAA

Page No: 9
Paragraph No: 30
Comment:

It is not clear this would enhance competition between EU airports, or reduce regulatory burdens.

Justification:

Without an indication of the level/circumstances at or under which subsidiarity would apply, it is not possible to assess the impact on UK aviation of imposing operating restrictions at some aerodromes.

comment 303

comment by: Luftfahrt-Bundesamt

29. to 30.

Directive 2002/30/EC on noise-related operating restrictions has already the aim of creating a uniform framework of regulations and procedures for operating restrictions at the airports of Member States. And with respect to small airfields local environmental problems can not be regulated by uniform requirements. This is a typical task of the subsidiary principle. We do not see any necessity for EASA to cover this task.

comment 534

comment by: Light Aircraft Association

Operating Restrictions

Paragraph 29

Whilst combining the environmental regulations from the member states could be good if the outcome was to be a light touch, the danger is that the environmental lobby will try and insist on impractical regulations as far as GA is concerned. The system may work for commercial aviation but is not practical for the wide range of GA aircraft and GA operations especially vintage and classic machines.

Paragraph 30

Yet again this should only apply to commercial operations. The wide range of

Airfields and types of aircraft in GA do not lend themselves to such overarching regulation.

comment 626 comment by: *BALPA*

Para 29 - A "level playing field" will not be achieved through EASA IRs when States are permitted to apply their National regulations.

comment 664 comment by: *NATS*

Paragraph 29: NATS would welcome sight of the impact assessments of and justifications for these assertions.

Paragraph 30: Again, NATS would welcome sight of the assessment which demonstrates how this will reduce the regulatory burden.

comment 796 comment by: *ECOGAS*

It is difficult to see how EASA could set common rules on operating restrictions in the face of Member States' national and local regulations. EASA should only consider this extension if such existing rules are replaced rather than simply added to.

comment 899 comment by: *Cathay Pacific Airways*

Paragraph 29

Unfortunately, it is doubtful if this would reduce rule making costs. The more likely scenario is that EASA rules would exist on top of local legislation, which would be far from the level playing field that is implied. A commitment to the EASA rules being the "top of the legislative tree" and over-riding States local requirements would be a fundamental issue here.

comment 918 comment by: *Dassault Aviation*

common rules are applied following subsidiarity levels depending on the local constraints : European countries are a puzzle with some economic objectives and the balanced approach defined by ICAO in doc 9829 -1st edition 2004 could be evocated

**A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment
- Scope - Aeronautical products - Operating restrictions - Question 3**

p. 9

comment 12 comment by: *KLM*

Answer:
EASA shall not be involved in environmental regulations at all.

comment 28 comment by: *Royal Aeronautical Society*

Q3: The proposal that operating restrictions for environmental protection reasons should fall within the EASA system with the aim of creating a 'level

playing field' not currently guaranteed through the relevant directives is supported. Such rules must provide the necessary level of subsidiarity where appropriate and include third-country operators operating into, within or out of the Community.

comment 50 comment by: *Samuel WENGER*

Question 3:

As stated under aerodromes, regulating operating restrictions at European level would likely lead to considerably sub-optimal rules for a majority of aerodromes, even if justified by 'level playing field' or 'reducing regulatory burden'. Any given restriction may be too stringent at one aerodrome, while it may men 'forced access' at a more sensitive location. Clearly, providing some guidance and arguments in respect to operating restrictions would be more appropriate than rules.

comment 65 comment by: *FRAPORT AG*

No! Fraport will not accept any operational restrictions based on general rules. The situation at and around an airport must be reflected individually.

comment 90 comment by: *Lars Hjelmberg*

Operating restrictions are to be set locally. The world on the tundra in northern Sweden is not the same as in Cologne and people and pilots from Cologne probably will be as lost as tourists when they visit the tundra in northern Sweden.

comment 107 comment by: *SAS Norway*

We refer to our answer under Question 2a.

comment 137 comment by: *EHPU*

It is not possible to form an opinion from the information provided. Quite what is being proposed is unclear, so the impact cannot be judged. However, any future operating restrictions must first be evaluated taking into account all aircraft operating practices - including hang gliders and paragliders. Because EASA has failed to properly define terms such as 'aerodrome' and 'airport' it is completely unclear whether EASA's current proposals will have a massive (possible fatal) effect on hang gliding and paragliding - or no effect at all. Any actual work on this topic must have inserted a clear statement 'None of this applies to the take-off and landing spaces used by all classes of hang glider and paraglider'. And 'None of this applies to the take-off and landing spaces used by aircraft below 115kg empty mass without pilot and fuel'.

comment 143 comment by: *British Gliding Association*

Sporting aviation bodies' observance of the Environmental Codes of Conduct developed by the Fédération Aéronautique Internationale www.fai.org/environment/code_conduct provides for specifics such as "adapting the flight profile and the aircraft configuration wherever needed and possible without affecting flight safety" and "low noise procedures for

parachute dropping”, together with many other much more comprehensive lists of activities. So, once again, the BGA believes that aerodromes not available to commercial air transport should not be subject to common EASA requirements.

comment 186

comment by: *EUROCOPTER*

Question 3: Eurocopter agree that, in order to obtain a uniform implementation of operating restrictions, thus ensuring a fair competition, operating restrictions should be subject to common rules under the EASA system.

comment 202

comment by: *ADVOCNAR*

Les contraintes environnementales au même titre que les contraintes de sécurité et de coût doivent conditionner l'optimisation des procédures d'exploitation. Nous sommes convaincus que seule une gestion intégrant ces différents aspects peut permettre de réduire substantiellement les nuisances pour les populations survolées et optimiser équitablement les distances parcourues, les consommations de kérosène etc.

L'observation du cas Roissy-Charles-de-Gaulle montre une absence de prise en compte de la dimension environnement dans les opérations quotidiennes. L'intérêt économique prime ,Par exemple :

- utilisation plus fréquente des pistes permettant de réduire le roulage et donc générant une économie de kérosène alors que ces pistes correspondent aux zones les plus urbanisés et donc au maximum de nuisances subies ! La formation de tous les personnels impliqués dans le processus, pilotes, contrôleurs, devrait permettre la prise de conscience salutaire.

- Les vols de nuit, à cause de leur impact majeur sur la santé et la qualité de vie, sont au coeur du débat pour réduire les nuisances. Roissy CDG est l'aéroport comptabilisant le plus de vols de nuit en Europe. Discuter de réduction des vols de nuit conduit immanquablement à aborder les conséquences économiques sous l'angle de la distorsion de concurrence et le risque que telle ou telle compagnie parte sur un autre aéroport européen moins regardant!

L'EASA doit fixer des règles d'exploitation en la matière tout en intégrant les spécificités de l'environnement de chaque plateforme aéroportuaire (topologie des sites par rapport aux populations survolées).

Le principe de subsidiarité proposé par l'Europe doit faire remonter au niveau européen le traitement des nuisances du trafic aérien, puisque le niveau national a montré des carences importantes en la matière. Imposer un couvre-feu nocturne sur une plate-forme alors que d'autres plates-formes concurrentes fonctionnent 24h sur 24 crée une distorsion de concurrence entre les compagnies. Seule une gestion d'ensemble peut conduire à un équilibre acceptable par les partie-prenantes, et éviter des discriminations. Par exemple : Orly au sud de Paris bénéficie d'un couvre-feu depuis 1968, tandis que les riverains de Roissy CDG, au nord de Paris, subissent les nuisances nocturnes.

Translation by Centre de Traduction

Any environmental constraints must facilitate the optimisation of the operating

procedures in the same way as the security-related and cost-related constraints. We are convinced that only a management approach that integrates these different aspects could permit a substantial reduction in pollution for the populations living under the flight paths and optimise equitably the distances covered and the consumption of kerosene, etc.

A study of the case of Roissy-Charles-de-Gaulle reveals a failure to take into account the environmental dimension in everyday operations. The prime economic interest is, for example:

- more frequent utilisation of runways permitting taxiing to be reduced and thereby generating a saving in kerosene, while these runways correspond to the most highly urbanised zones and thus to the maximum of pollution suffered. The training of all personnel involved in the process, including pilots and controllers, should permit a salutary level of awareness to be reached;

- night flights, given their major impact on health and quality of life, are at the heart of the debate on reducing pollution. Roissy CDG is the airport accounting for the largest number of night flights in Europe. Discussing a reduction in night flights leads inevitably to the economic consequences being raised from the point of view of distortion of competition and the risk that one company or another may depart to another, less demanding European airport.

The EASA must lay down operating rules in this respect while integrating the specific environmental features for each airport platform (topology of the sites in relation to the populations under the flight paths).

The principle of subsidiarity proposed by Europe is intended to return the handling of pollution caused by air traffic to a European level, since the national level has revealed major deficiencies in this respect. Imposing a nocturnal curfew on one platform, while other competing platforms continue to function around the clock, creates a distortion of competition between companies. Only a holistic approach to management can lead to an equilibrium that is acceptable to the parties concerned and avoid discrimination. For example: Orly, to the south of Paris, has benefited from a curfew since 1968, whereas the local residents of Roissy CDG, to the north of Paris, are subject to nocturnal pollution.

comment 207

comment by: *BDF - German Airline Association*

Generally common rules are always welcome. But under such a scenario national agencies should not have the right to publish their own additional rights. This should prevent from establishing stricter national regulations than the EASA considerations are. The goal should be to modify the ICAO restrictions (e.g. Annex 16) accordingly. This would avoid the implementation of a further regulative body.

comment 222

comment by: *jobeckers UECNA*

The EU Directive 2002/49 has been released with the objective to document the noise exposure to people, and to define measures to reduce their exposure in the future. In line with this Directive it will be imperative to impose restrictions to aircraft operations, such as noise-related operating restrictions, if noise reductions cannot be achieved otherwise.

comment 272

comment by: UK CAA

Page No: 9
Paragraph No: Question 3
Comment:

The UK CAA can see no advantages in environmental operating restrictions being subject to common rules under the EASA system. EASA should restrict its environmental regulation to the setting of goals, and assessing performance against common standards.

Justification:

General environmental policy should be regulated by other bodies and coordinated at Community level with standards that apply equally to all Member States. Methods of achieving those standards will differ greatly from State to State as a consequence of local conditions and their enforcement should remain a State responsibility.

comment 290

comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

Targeted measures which take regional requirements into account can be taken based on the "Balanced Approach" and are the best solution. Based on EC Directive 2002-30 national authorities can introduce measures serving regional needs already today. If EC Directive 2002-30 was outdated it should be updated or replaced.

There is no need for additional competence of the agency in this matter.

comment 296

comment by: *Luftfahrt-Bundesamt*

Question 3:
 No, the LBA does not agree.

comment 331

comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)*

Similar to the Agency's suggestion not to address economic measures under the EASA system, we suggest that operating restrictions affecting aircraft operator's market access should not be addressed under the EASA system.

Operating restrictions affecting third country aircraft operators for environmental protection that restricts market access are closely linked to Member States international obligations such as the Chicago Convention and the traffic right provisions in bilateral air transport agreements as well as provisions regarding for example the distribution of air traffic between neighbouring airports. We believe that it is better to maintain the present decision process for such operational restrictions.

It is also important that the design of relevant operating restrictions in the vicinity of airports should take local needs and conditions in consideration. Therefore, national authorities should be involved in the establishment of relevant environmental operating restrictions affecting airport operations. See also paragraph 2 above.

comment 341

comment by: *BMVBS, DE*

BMVBS shares the view that considerable synergies could be achieved by transferring the responsibilities for operating restrictions for environmental protection reasons already in place, subject to common rules, to the EASA system. In this respect an assessment could prove useful. Nonetheless, BMVBS does not see the benefit of transferring the responsibility for all across-the-board operating restrictions in the field of environmental protection to the EASA system, as there remains a fair amount of well-balanced rules in place now that take into account very special regional implications and considerations. BMVBS is of the opinion that those rules could hardly be covered by general implementation rules established at EASA level.

comment 383

comment by: *International Air Transport Association (IATA)*

Question 3: *The Agency is interested in knowing whether stakeholders consider that operating restrictions should be subject to common rules under the EASA system.*

- In line with our views expressed with regard to Question 2.a., IATA believes that it would be inappropriate to apply common rules for managing operating restrictions. Taking the ICAO Balanced Approach to Aircraft Noise Management as an illustration, IATA emphasises that operating restrictions should only be considered where there is a demonstrated need, and such measures should be proportionate to the specific environmental problem at hand.

comment 397

comment by: *General Aviation Awareness Council, UK*

In the UK, it is already the practice for airspace design and air traffic routes to be developed with regard to noise implications. It is not necessary for EASA to become involved in what is already existing good practice. UK Aviation bodies already respond to ATM and ANS proposals with heed to safety issues. No more "Common Rules" are required.

Similarly, procedures are already used to reduce the environmental impact of aviation. In the UK, general guidance such as the GAAC booklets "Considerate Flying" and "More Considerate Flying" (see <http://www.gaac.co.uk> then click on "General Aviation - what is GA", and then on "More Considerate Flying"); and sporting aviation bodies' observance of the Environmental Codes of Conduct developed by the Fédération Aéronautique Internationale (see http://www.fai.org/environment/code_conduct) cover elements EASA that mentions, "such as adapting the flight profile and the aircraft configuration wherever needed and possible without affecting flight safety" and "low noise procedures for parachute dropping", together with many other much more comprehensive lists of activities. These are already handled by bodies with the necessary detailed levels of expertise which EASA notably does not have, and should not seek to duplicate.

In our view, there is no current need for common EASA regulations for "the environmental regulation of the licensing of pilots, air traffic controllers and maintenance engineers, particularly for those employed or engaged in light aviation, as well as the training of any other person active in the aviation system".

comment 408

comment by: *Light Aircraft Association***Answer to Question 3**

Again the simple answer is no.

Operating restrictions will stifle any opportunities for further development of better environmental methods.

The extent of this question is so wide that it is impossible to answer logically. Under paragraph 24 the agency has made the statement that regulation of ATM and ANS is necessary, leaving this as a statement rather than a question! We oppose such statements as they do not conform to the requirements of the consultation process.

The debate relating to trajectories and SESAR are particularly onerous to the GA community as there is little or no opportunity for GA to be involved. Again the question seems to be relating to the Commercial Air Transport portion of aviation whilst ignoring the GA Community; this would mean the GA aircraft would be constrained to what is left of the airspace with little thought to the environmental aspect or, more importantly, the safety aspect.

We are in favour of education and training in environmental aspects of aviation and the promotion of this training in day to day operations but trying to regulate the environment will only stifle opportunities.

With advances being made almost daily in technological improvements to reducing the environmental impact of many walks of life, regulation would not keep up with the technology and again would be a backward step to the potential improvements possible.

Response from the Vintage Aircraft Club

To produce common operating rules for all aircraft from gliders and ultra-lights right through to commercial air transport would be totally impractical. Producing rules for CAT may be but GA needs to be able to operate with little or no hinderance across the Community and beyond.

The operation of historic aircraft will be incompatible with any common rules.

comment 443

comment by: *Bae Systems*

Common rules under EASA should be applied, but it is important that those rules are sensible, not too onerous and do not have a derogatory effect on ANSPs. Much work is already done to reduce congestion, optimise routes and reduce environmental impact. EASA's role should be to support those efforts rather than become too prescriptive in its own right.

comment 449

comment by: *Aerospace Industries Association*

AIA believes that operating restrictions as the means to reduce adverse environmental impact of aircraft operations must be kept to an absolute minimum, and be used only as a last resort after other mitigation measures have been explored and exhausted as presented in the ICAO Balanced Approach to Noise Management guidance document which requires that operating restrictions be on an airport by airport basis. With these principles in perspective, when operating restriction at a given airport is deemed necessary, common rules would be appropriate if they are properly utilized to minimize costs, prevent proliferation of local rules, and avoid disruptions in the efficient operation of the aviation system.

comment

476

comment by: *General Aviation Manufacturers Association (GAMA)*

The discussion in this section raises some concerns. For example, the NPA accurately states that "the aviation community is expecting much from the SESAR project's contribution to reducing fuel consumption" but goes on to say that further measures might be put in place to affect trajectories in order "to avoid unnecessarily affecting the ozone layer or flying over sensitive areas; this may be necessary for supersonic flight or aircraft using open rotors." GAMA would note that there are already a number of airspace exclusion zones for a variety of reasons, as well as noise-specific measures. In addition, the EU Noise Directive (EC 2002/49) already sets out a process (the balanced approach) to deal with noise issues. The SESAR project and Single Sky initiative promise to bring about a welcome rationalization of the ATM system in Europe, with expected significant environmental benefits. The highest priority of the ATM system should be aviation safety. We believe it would be next to impossible to design a rule that could properly account for all of the variables that might affect air traffic patterns on a given day or in a given sector. The great benefit of air traffic modernization will be that trajectories should be as efficient (and therefore as environmentally beneficial) as possible - any additional requirements can introduce potential unintended consequences. For example, diverting an aircraft to avoid "sensitive areas" (recalling that there are already restrictions in place that do this to some extent) might save one area from marginal exposure to additional noise, for example, but could require the aircraft to carry extra fuel to travel a longer route, with a negative impact from increased emissions of CO₂, not to mention additional cost and possible increased congestion in the air.

The NPA document also notes that "synergies" could be created by mandating, for example, the "prohibition of carrying more fuel than needed only to profit from price differences between different regions as this practice leads to creating more emissions than necessary." This suggests that EASA favors an environmental regulation to fix an economic problem. This also seems to be a solution in search of a problem. This is never a good idea and would introduce new costs for operators who might tanker fuel for a number of reasons, including scheduling priorities and contractual obligations, among others. In addition, the text offers no evidence that this is a significant issue. Carrying extra fuel entails a weight penalty, which translates to added operating cost. Operators therefore have every incentive to reduce weight. If there are disparities in the price of fuel across the internal market, they are due to a combination of other factors, including transportation costs and the fiscal policies of member states. If member states' fiscal policies create distortions in the internal market, they should be addressed via fiscal policy, not aviation regulations.

With regard to the training of personnel, again it seems to be a solution in search of a problem. It is not clear from the discussion in paragraph 28 what would be the objective of including "environmental knowledge requirements" in the "theoretical training" of certain personnel such as pilots, air traffic controllers and maintenance engineers. Individuals engaged in aviation activities that require a license are certified by virtue of their license to have shown themselves able to operate competently and safely within their specified profession. These individuals should be able to demonstrate only that they are capable of flying an aircraft, for example, safely and in accord with all the applicable rules, including environmental ones. To layer on a vague educational requirement of "environmental knowledge" would make an already rigorous

licensing process based on safety principles even more complex and costly, for the equally vague objective of an ill-defined level of environmental awareness.

comment 480

comment by: *Fridrich Jan*

I believe that the regional differences in Europe are much better handled and more effective for the protection of the environment when they are tailored by the regional level based on expert knowledge of the specific situation.

comment 492

comment by: *Air Transport Association of America, Inc. (ATA)*

ATA emphatically believes it would be inappropriate to consider any standardized approach to operating restrictions other than the framework provided by the Balanced Approach to Noise adopted by ICAO. The Balanced Approach provides that each locality should assess its own noise problem and develop noise management measures tailored to local circumstances, among which operating restrictions should be the last resort.

comment 519

comment by: *AESA*

We consider that operating restrictions should be subject to common rules under the EASA system. It is also necessary to notice that some flexibility is needed because there are different situations along the stakeholders and some exceptions or adaptation of the rules could be needed.

comment 524

comment by: *Royal Danish Aeroclub*

Answer to Question 3:

We do agree that the EU-countries could have benefit for EASA-regulation of the operational restrictions around airfields.

comment 540

comment by: *Deutscher Aero Club e.V. (DAeC)*

Operating restrictions due to environmental protection reasons for airfields used and managed by air sport clubs already exist in Germany and are well accepted.

Proposal:

Exclude airfields managed and used by air sport clubs from foreseen EASA regulation.

comment 550

comment by: *ECA - European Cockpit Association*

- ECA reiterates its position previously voiced on many occasions, that EASA should remain an agency solely and purely responsible for safety. Any environmental protection measures must be clearly subordinated to EASA's principal objective. Whether environmental protection is regulated through the EASA system or through a different approach, the supremacy of safety considerations must be clear and unambiguous.

- Airport design needs to follow this order of priorities: safety, operational efficiency, environmental sustainability. For example: runway orientation

should be done according to ICAO Annex 14 (with respect to prevailing winds and obstacles and to prevent operational hazards such as runway crossings). For example, hard curfews introduce operational hazards and have safety implications.

comment

576

comment by: *The Norwegian Ministry of Transport and Communications*

On a general basis, we agree that operating restrictions should be subject to common rules under the EASA system. At the same time there will be a great need to adapt common rules to local conditions. The common rules must be rather general and the enforcement must be delegated to a national body.

comment

580

comment by: *ADV*

We believe that it would be inappropriate to apply common rules for managing operating restrictions. There are a number of reasons for this including the issue of common curfews of non-uniform time zone across the whole of the European Community.

A principle that we would consider essential is that any operating restriction is proportionate to the issue, only apply to airports where there is a demonstrated need, and applied in the framework and spirit of the ICAO "Balanced Approach".

comment

589

comment by: *British Airways*

British Airways believes that it would be inappropriate to apply common rules for managing operating restrictions. There are a number of reasons for this including the issue of common curfews of non-uniform time zone across the whole of the European Community, which could specifically penalise those in time zones where flight times and curfews are critical.

A principle that we would consider essential is that any operating restriction is proportionate to the issue, only apply to airports where there is a demonstrated need, and applied in the framework and spirit of the ICAO "Balanced Approach".

comment

604

comment by: *Walter Gessky***Question 3:**

The minimum standard to establish operating restrictions should be subject for common rules. Except for important issues, generic restrictions like the use of Chapter 2 aircraft, where the Commission will be responsible, only the **MS shall be responsible for certification, oversight and implementation of operating restriction**. Common EU implementing rules for certification, oversight and implementation of operating restriction shall apply, to be applied by all MS in a standardized manner, but the MS should be able to be more or less restrictive with regard to restrictions for operation in specified local areas. Local demand with regard to environmental protection of citizens requires flexible solutions.

Responsibilities:

Rulemaking (implementing Rules): Commission/ Council and Parliament

Generic restrictions: Commission

Certification and oversight, implementation of operating restrictions in his territory: MS
 Standardization: Agency for the Commission
 Assistance with regard to AMC and GM: Agency

comment 643 comment by: *Flughafen Paderborn Lippstadt GmbH*

As stated in response to question 2a in paragraph 2 common rules under an EASA system raise the concern for lack of commensurability. It is therefore our view that the ICAO "Balanced Approach" sets the framework to deal with operating restriction issues in a more proportionate and sufficient way.

comment 666 comment by: *NATS*

NATS does not believe the claimed benefits have yet been demonstrated for operating restrictions to be subject to common rules under the EASA system.

comment 684 comment by: *AgustaWestland*

We agree that, in order to obtain a uniform implementation of operating restrictions, thus ensuring a fair competition, operating restrictions should be subject to common rules under the EASA system.

comment 708 comment by: *Department for Transport*

We support including environmental knowledge in the theoretical training for pilots, air traffic controllers and maintenance engineers. This would help them mitigate the environmental impacts of aviation. but care is required not to place a significant administrative burden and cost on the industry. This may be particular beneficial for pilots of older aircraft types where the computers make fewer decisions and the efficiency of each flight is more dependent on pilots skills.

comment 734 comment by: *Rolls-Royce plc [DGJ]*

The management of operational restrictions does not have a direct impact on Rolls-Royce activities so we are not well placed to comment.

However, it is likely that any mechanism promoting both the adoption of common rules and the common interpretation of such rules would be of benefit to all in the aerospace industry since inequalities tend to result in design compromise.

Hence, Rolls-Royce would not object in principle if a system of rules for environmental protection were to be run in parallel alongside the aircraft safety system, provided that strength of the latter remains undiminished.

That said, ICAO already sets global standards for both Noise and Emissions for Transport Category aircraft so, for such aircraft and operations, it is unclear what additional benefit would accrue from its inclusion within the EASA system. We would urge EASA to promote the evolution of the ICAO/CAEP requirements in preference to generating a set of requirements unique to Europe and which could potentially lead to unintended consequences and inadvertently penalise European Industry.

comment 744

comment by: FAA

EASA could have the potential to provide a uniform, harmonized, and effective approach to aviation environmental regulation throughout Europe. However, the present proposal falls short in many areas, including both the substance of the proposed essential requirements and the absence of a Community-level decision-making process. The FAA recommends the withdrawal of the present proposal and a convening of relevant stakeholders in order to develop a new draft that would form the basis for effective EASA regulation.

Operational restrictions at airports should be a last-resort measure to address airport noise, employed only once other measures, such as air traffic and ground procedures and land-use planning, have been exhausted. Such decisions should be made on a case-by-case basis, taking into account safety, all relevant stakeholders' views, and the impact on commerce in the local area, within the EU, and with international markets. To the degree the Community determines that a central decision-maker should be established to harmonize the process by which operational restrictions are evaluated in the Community, then that decision-maker should consider recommendations for such restrictions from local authorities and evaluate the proposals against specific criteria, including, for example, the safety implications and the impact on commerce within the EU and with international partners. A transparent process that takes into account safety and economic impact (particularly on the broader air transport system) should be put in place, not simply a limited list of possible operational restrictions.

With regard to the notion of en-route operational restrictions for environmental reasons, safety must be the first consideration. With regard to the notion of diverting around weather conditions through which a flight would cause cirrus, it is reasonable to note that the trade-off with additional fuel burn and, therefore, greater carbon emissions must be taken into account. As the science on climate change damage due to cirrus vs. carbon emissions is still uncertain, it is premature to propose such a basis for operational restrictions.

comment 757

comment by: Europe Air Sports PM

EAS believes that the regional differences in Europe are much better handled and more effective for the protection of the environment when they are tailored by the regional level based on expert knowledge of the specific situation.

comment 764

comment by: Light Aircraft Association of the Czech Republic

LAA CR believes that the regional differences in Europe are much better handled and more effective for the protection of the environment when they are tailored by the regional level based on expert knowledge of the specific situation.

comment 774

comment by: APAU

We believe that the regional differences in Europe are better handled and more effective for the protection of the environment when they are tailored by the regional level based on expert knowledge of the specific situation.

- comment 782 comment by: *Aero-Club of Switzerland*
- Our answer is: Strictly no!
- Justification: Already now there are too many operation restrictions imposed on aviation.
- We could change our opinion the Agency proposes the abolition of all operating restrictions of the 27 + 4 member states, effective from the same date in EASA-Land.
- comment 800 comment by: *ECOGAS*
- In our view, there is no current need for common EASA regulations
- comment 801 comment by: *ECOGAS*
- In our view, there is no current need for common EASA regulations
- comment 807 comment by: *Satu Routama*
3. No. Operating restrictions should not be under the EASA system. Local conditions and needs can be taken into account best by using national restrictions.
- comment 813 comment by: *IACA International Air Carrier Association*
- IACA considers that environmental operating restrictions should not be subject to common rules under the EASA system. The role of EASA is to regulate, set standards and provide guidance. It should not be in EASA's remit to define operation restrictions. IACA would further like to give comments on EASA's introductory text to the question:
- § 24. The avoidance of certain zones to "avoid unnecessarily affecting the ozone layer" (quote) may lead to higher CO2 emission levels. IACA considers that this matter is more complex than described by EASA.
 - § 26. IACA objects to the use of the word "needed" in the 5th line. The word "desirable" should be used.
 - § 27, last sentence. IACA deplores that this phrase is mentioned. The prohibition of carrying "more fuel that is needed" (quote) may lead to significantly higher costs for airlines. Furthermore, such restriction would be impossible to monitor.
- Individual airlines have more in depth experience of optimising operational fuel efficiency than EASA, and should retain the authority to manage their own economic and environmental performance. IACA notes that a number of the requirements in NPA 2008-15 are already covered by ICAO and/or (national) airport regulations and rules for obtaining an AOC. IACA identified potential overlaps/conflicts with the Single European Sky (SES) and SESAR initiatives.
- comment 821 comment by: *CAA FI*
- If operating restrictions would be subject to common environmental rules, the Members States should have sufficient competence to file local differences

where appropriate.

comment 826

comment by: *Munich Airport*

We believe that it would be inappropriate to apply common rules for managing operating restrictions. There are a number of reasons for this including the issue of common curfews of non-uniform time zone across the whole of the European Community. A principle that we would consider essential is that any operating restriction is proportionate to the issue, only apply to airports where there is a demonstrated need, and applied in the framework and spirit of the ICAO "Balanced Approach".

comment 840

comment by: *Direction Générale de l'Aviation Civile*

As has been stated in the document, operating restrictions are already addressed in directive 2002/30/CE regarding a balanced approach to operating restrictions. This directive defines the principles to be applied, in order to guarantee fair competition and a balanced approach between the protection of the nearby residents, protection against climate change, and the development of transportation between European Union members.

While it is legitimate to consider ways to encourage a common course of action on environment, which is both a major issue recognized by all parties and an area where the European Union is fully competent, the French Civil Aviation Authority reminds that France, like many other countries, has developed a policy of addressing these environmental issues at the national and local levels. The ability to pursue these policies, which have proven successful, should be maintained.

comment 846

comment by: *CAA-NL*

Position

The Netherlands favours retaining the scope for policy making at national level with regard to operational restrictions (such as banning certain categories of aircraft), with a view to local circumstances that sometimes require specific measures.

In addition, the Netherlands would like to keep the scope for national policy making within a European context, as already laid down in Directive No. 2002/30/EC, regarding noise-related operational restrictions.

The Netherlands is also of the opinion that the proposals in the explanatory notes are too detailed and that in some areas go beyond current national environmental regulations and those in the process of being drawn up.

comment 866

comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*

No. The role of EASA is to regulate, set standards and guidance. It is not the role of EASA to define operating restrictions. The only role EASA could play is to ensure that ICAO balanced approach is being followed but it does not merit new rules

comment 908 comment by: *Dassault Aviation*

Taking into account all local constraints to draft a common rule would probably result in overly stringent requirements. Rules should allow local restrictions due to specific constraints, while keeping generally agreed levels where these constraints are not present.

comment 961 comment by: *AOPA-Sweden*

Operating restrictions under item 6 a 1, 3, 4, 5 are activities crossing borders and are not effecting the ground and thus, they are suitable to be governed by EASA. Item 6 a 2 is though best regulated by local authorities since they best know what kind of restrictions are needed in certain areas.

comment 981 comment by: *ACI EUROPE*

ACI EUROPE is aware of EASA's intended purpose to transfer the regulation of operating restrictions for environmental protection purposes under the EASA system, as a means to create a level playing field, reduce the regulatory burden and avoid existing unclear sharing of responsibilities. However, ACI EUROPE has doubts whether these well intended goals can be achieved by the suggested transfer of responsibilities, even while providing the necessary level of subsidiarity where and when appropriate. As already stated in our general comments, ACI EUROPE is of the opinion that such a "mix of responsibilities" could rather be counterproductive. The ultimate goal of creating a level playing field shall probably result from a proper and careful balance between safety, capacity and environmental considerations within dedicated regulating organisations, with all necessary expertise in each area. As stated in the Explanatory Note to NPA2008-15 (paragraph Nr 37), it may be the case that there is no possible synergy between environmental and safety requirements and that the most appropriate operational regime (to include or not to include operational restrictions) would be an equilibrium/trade-off between safety constraints, capacity demands and environmental protection ambitions. This cannot be necessarily reached within one single technical (safety) agency, without the appropriate political considerations.

comment 987 comment by: *MT-Propeller Entwicklung GmbH - DOA EASA 21J.020*

We do not agree that operating restrictions should not be subject to common rules under the EASA system. The proposals are too strict or even not be fulfilled.

The phase-out of old technology aircrafts is inappropriate. The majority of the general aviation aircrafts are of old technology. Also the majority of these aircraft and engine manufacturers which tried to develop and sell their modern products went insolvency because costs are tremendous and the market is small. e.g. approx. 8000 GA aircrafts in Germany, approx. 23000 GA aircrafts in Europe versus approx. 250000 GA aircrafts in the USA. The phase-out of old technology aircrafts will definately stop or even erase general aviation business and operations. This cannot be acceptable to anyone being involved in the aviation business and operations neither in industry nor privat nor at EASA or at NAAs

comment 1004 comment by: AEA

It would be inappropriate to apply common rules to manage operating restrictions. There are a number of reasons for this, including the issue of common curfews in nonuniform time zones across the whole of the European Community.

It is essential that any operating restriction is proportionate to the issue, would only apply to airports where there is a demonstrated need, and would be applied in the framework and spirit of the ICAO "Balanced Approach".

comment 1019 comment by: *Environmental Court Vänersborg Sweden*

Driftrestriktioner bör utformas med hänsyn till förhållandena i det enskilda fallet.

Translation by Centre de Traduction

Operating restrictions should be drawn up with reference to the circumstances in each individual case.

**A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment
- Scope - Economic measures**

p. 9

comment 16 comment by: KLM

31
When any regulation comes in force this should have no impact on operations and only minimal impact in total.

comment 66 comment by: FRAPORT AG

31. Fraport fully agrees! (Same as under under 22)

comment 124 comment by: *Aero-Club of Switzerland*

31: You are perfectly right: Economic measures should not be addressed under the EASA system.

Justification: Economic measures and land use do not belong to your activities.

comment 273 comment by: UK CAA

Page No: 9
Paragraph No: 31
Comment:
The UK CAA agrees that EASA should not seek to lead on this area.

Justification:
Economic measures should not be the preserve of a specialised safety agency.

comment 352

comment by: AIRBUS

§ 31

The paragraph 31 reads:

"Economic regulations such as noise or emission related charges are widely being used to reach environmental objectives. The proposal to include aviation in the Emission Trading Scheme is an example of this. However, economic measures are not part of the Agency's remit, as it was considered that trade-offs between safety and economic objectives should be made on political rather than on executive level. It is unlikely that the situation will change in a foreseeable future. The Agency does not think therefore that economic measures should be addressed under the EASA system. As with land use planning, this does not mean that the Agency could not contribute to the development or administration of rules or regulations in this context, or provide data needed for the implementation of such regulations. However, the legal basis for these activities would be in other regulations than the Basic Regulation."

- The rationale behind the point linked to the trade-offs between economic objectives and safety is difficult to understand. It can be subject to misinterpretation as regards to safety objectives that remain the priority. This paragraph should be deleted from the final explanatory note.
- In relation with the possible development by the Agency of regulations having a potential economic impact, the Agency should develop proposals allowing a better flexibility of noise documentation management. A higher flexibility, while remaining in line with ICAO recommended practices, would allow taking into account the actual noise level of the individual aircraft. Comments to NPA 15/2005 and A-NPA 13/2006 have been made in that sense by the industry.

comment 541

comment by: Deutscher Aero Club e.V. (DAeC)

Ultralight Aircraft are known for very low noise emission and fuel consumption.

Proposal:

No additional regulations are needed.

comment 568

comment by: ADV

We are deeply concerned with the statement in paragraph 31 (IV Content of the Notice of Proposed Amendment) that '*trade-offs between safety and economic objectives should be made on political rather than on executive level*'. Our principals have always been, and always will be, that safety cannot be compromised for economic benefit or any other reason.

comment 582

comment by: British Airways

We are deeply concerned with the statement in paragraph 31 that '*trade-offs between safety and economic objectives should be made on political rather than on executive level*'. Our principals have always been, and always will be, that safety cannot be compromised for economic benefit or indeed any other reason.

comment 667 comment by: NATS

It is unlikely that the situation will change in a foreseeable future. The Agency does not think therefore that economic measures should be addressed under the EASA system. **NATS agrees EASA should not address economic measures.**

comment 797 comment by: ECOGAS

The economic measures referred to are already drafted and in circulation. Additional EASA regulation (including non-economic regulation) would have to be clearly demonstrable to be of added value to these existing laws. There is a real danger that well-meaning EASA regulation will simply add bureaucratic burden for no actual return to the aviation community or the community in general.

comment 919 comment by: Dassault Aviation

If operating restrictions are disconnected of the other measures like economic measures under other regulations, some distortions in rules could happen. So DA suggests that all the extensions required by EASA relative to the operations and their management will be out EASA

**A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment
- Scope - Environmental objectives**

p. 9-11

comment 91 comment by: Lars Hjelmberg

page 10 item 33. Aviation is by nature international and not only the EU. ICAO is the right body for regulations.

item 34. The EU is also responsible for maintaining systems that can compete internationally economically wise. Too much today is regulated also in the field of flight safety without proper economical evaluation. There are also lack of competence inside the regulating body.

item 35 The writing does not take into account the population, number of people affected. One cannot have the same regulations where there already today are environmental problems and other areas that in reality not is affected at all.

item 37. To prohibit activities as discussed in this paragraph sound strange. Why not first discuss what other activities outside aviation that can be reduced or just not possible. For example cattle activities, or noise/ pollution from normal ground traffic. Who has the competence to judge ?

comment 125 comment by: Aero-Club of Switzerland

37: We do not accept this passage.

Our first question is: Who will decide about the use of seaplanes in Norway, mountain flying in Switzerland, banner towing in France, airshows, heli-skiing? The NAA? Then, there will never be a level playing field.

Justification: NAA decisions will in almost all cases be influenced by the national lobbyists.

Our second question is: How many "essential requirements" are necessary to kill aviation?

Justification: If you combine a sufficient number of ER, nearly all human activities, probably except reading (no noise, no heat, no electric current needed etc.), will become impossible.

comment 169

comment by: *KLM Engineering & Maintenance*

A.IV.33 and 34. At the end of para 34 it is stated that the implementation measures "should be fully consistent with the ICAO framework" and "avoid penalizing the European industry". In fact the simplest way to achieve this would be to adopt the ICAO standards. All EU countries have been able to contribute to- and have accepted the ICAO standards and if these are minimum requirements, any addition would invariably penalize the European industry and have a negative impact on the competitive position of EASA member airlines in relation to non-EASA member airlines. We regret EASA provides no satisfactory explanation why it can not take ICAO standards as a basis and does not quantify the benefits of their proposals in order to justify the costs.

comment 170

comment by: *KLM Engineering & Maintenance*

A.IV.35 and 36. It seems strange that EASA should need this NPA to reconfirm the means that it already has to "mitigate health hazards.... related to noise and emissions from civil aviation", namely by setting certification standards for emissions (e.g. in CS-25, CS-34 and 36). If the EU requires better environmental performance, more stringent certification limits can be set and even mandated retroactively. This is many times more effective than educating mechanics who can not influence the noise and emission as a result of performing approved/accepted maintenance procedures from which they are not allowed to deviate.

comment 171

comment by: *KLM Engineering & Maintenance*

A.IV.37. If as stated in A.IV.34 it is the intention of EASA to "avoid penalizing the European industry", how can it be that this environmental essential requirement can "make a certain aviation activity impossible"? As this will have a negative effect on the level playing field, EASA should not have the possibility to prohibit certain aviation activities without proper substantiation. In addition a realistic timeframe is necessary to enable airlines to adapt to a new situation.

comment 274

comment by: *UK CAA*

Page No: 10
Paragraph No: 33
Comment:

The argument that the Community should adopt its own ERs for environmental protection and that this could allow tighter standards than under ICAO could be potentially attractive though many questions remain without a full impact assessment.

Proposed Text (if applicable):

ATM and ANS are two of a number of areas, where there are currently no ICAO SARPs dealing with environmental protection. Neither Annex 11 nor Doc 4444 mentions requirements for environmental protection, while Annex 16 does not deal with ATM/ANS.

comment 275

comment by: UK CAA

Page No: 10/11**Paragraph No: 37****Comment:**

NPA 2008-15 does not address the important issue of possible conflicts between safety and environmental issues. While there may be synergies between safety and environment, there are also potential trade-offs, and it should not just be assumed that because there is a tool available (e.g. EASA certification) that this is the best way of achieving its aim. The NPA itself (paragraph 17) says that it is unlikely that the EASA system will be appropriate for all aspects of environmental protection. **The CAA considers that NPA 2008-15 should have made it clear that environmental aspirations must never compromise safety requirements and specifically identified all the potential safety implications of its proposals.**

Justification:

This paragraph presents a simplistic view of the potential relationship between environmental protection and safety essential requirements. Although it suggests that environmental protection requirements should not be contrary to those for safety a number of the ERs as drafted do provide scope for conflict between safety and environmental objectives. The suggestion that a combination of environmental and safety requirements may make an aviation activity impossible and that one result could be the cessation of that activity ignores the fact that there may be other equally compelling social and /or economic reasons why an activity should not continue - so long as it does so safely.

The NPA does not explain how the potential economic and social impact would be assessed. Questions such as the impact on transport infrastructure in remote areas would need to be carefully considered. It is therefore possible that legislation on the lines proposed would make certain long-established aviation activities impossible or unviable, with the potential for widespread economic and social impact.

comment 304

comment by: Luftfahrt-Bundesamt

32.

Since the protection of the environment constitutes one of the Community' s essential objectives, obstacles to free movement within the Community resulting from disparities between the national laws must be accepted in so far as such rules, applicable to domestic and imported products without distinction, may be recognized as being necessary in order to protect the environment from harmful effects. Therefore, the spirit of the Basic Regulation should stand behind national conditions to protect the environment.

comment 305

comment by: *Luftfahrt-Bundesamt*

34.

It is not clear, what the intention of the 'Commission regulations and the Agency's certification specifications' that base on the essential requirement for environmental protection will be. The statement of this information is not clear. It is expected that EASA is going to develop additional European regulations in order to close gaps and to embed additional categories (see answer 18) in its environmental protection requirements.

comment 353

comment by: *AIRBUS***§ 33**

The paragraph 33 reads:

"Using ICAO standards as essential requirements for regulating environmental protection in the Community presents also other drawbacks. They are generally understood as setting minimum standards; their transposition into Community law, however, makes it impossible to deviate from them at all. This deprives the Community from its right to decide on alternative systems. This would be of particular value if the main aircraft manufacturing states within ICAO could agree on a common policy to be more stringent than Annex 16, as is the case in several safety areas, thus taking a leading role in the development of more environmentally friendly aviation products. [...]"

- The rationale behind this statement is difficult to understand. In particular, it is difficult to understand the reasons why a "common policy to be more stringent than Annex 16" should be developed by the "main aircraft manufacturing states within ICAO"...outside ICAO. ICAO is certainly the best place where common policies or procedures can be discussed in order to ensure the necessary buy-in and success of the global implementation of a new rule. It has been the case until now, and the reasons why things should be different are not exposed. The introduction of a regulatory basis with such an extended scope at European level only will raise major difficulties that will extend far beyond the technical domain under EASA responsibility.
- The underlined part of the paragraph 33 seems to indicate a willingness to work concurrently with "aircraft manufacturing states within ICAO". There is nevertheless no indication in the NPA that the content of the proposal has been discussed with other States or Authorities before publication.

comment 354

comment by: *AIRBUS***§§ 34, 35**

The paragraphs 34 and 35 read:

*"[...] To allow, however, Member States fulfilling their ICAO obligations and avoid penalizing the European industry, these essential requirements and their implementation measures should be fully consistent with the ICAO framework."
 "[...] Care has also been taken to ensure their compatibility with the corresponding ICAO Standards and Recommended Practices."*

The essential requirements, as proposed, and their implementation measures, while being consistent with ICAO recommendations, can be penalizing for the European industry if they are more stringent than these recommendations and not globally harmonized. In addition, the best way to be consistent with the

ICAO framework would be certainly to work inside this framework, which is not the proposed option, as explained in paragraph 33.

comment 355

comment by: AIRBUS

§ 34

The paragraph 34 reads:

"[...] As setting quantified targets would require a full legislative process every time technological developments allow the introduction of more environmentally friendly products or procedures, it is recommended that such requirements only prescribe the measures that shall be implemented to mitigate all significant environmental harmful effects of civil aviation at a high uniform level. [...]"

A large part of the past progress in terms of environmental protection has been driven by technological advances in the field of product design. Any requirement should be written in such a way that it should represent an incentive in favour of innovation. Too prescriptive requirements would be counterproductive as regards to the environmental performance objectives since they would set standards that, once achieved, would not encourage the actors of air transportation in going beyond the prescribed levels. Despite the willingness of the legislator to "only prescribe the measures that shall be implemented to mitigate all significant environmental harmful effects of civil aviation at a high uniform level", the proposed Essential Requirements present a level of details that is too prescriptive. (See comments to Essential Requirements)

comment 356

comment by: AIRBUS

§ 36

The paragraph 36 reads:

"The establishment of such high level essential requirements has an advantage in terms of providing guidance for industry when developing new activities or products. The detailed technical certification requirements for such activities or products will often not be determined until after the development, and will most likely be applied retroactively. The essential requirements would provide industry with a reference point on the estimated final level of stringency, thus informing any strategic decision on whether to go ahead, or not, with the development of a new product or activity."

The approach consisting in giving retroactive criteria to environmental protection requirements as a systematic policy is not realistic for the products. Each requirement should be assessed on a case by case basis. As regards to the airworthiness requirements, retroactivity is the exception. It should be confirmed that it is not the intent of the legislator to mandate environmental protection requirements to existing products on a systematic basis.

comment 357

comment by: AIRBUS

§ 37

The paragraph 37 reads:

"Last but not least it has to be kept in mind that essential requirements for environmental protection come in addition, and not contrary, to other essential requirements, most importantly the essential requirements for safety. It may

be the case that the combination of environmental essential requirements and safety essential requirements, and possibly other requirements, make a certain aviation activity impossible. In such case it is necessary to find alternative solutions or accept that such activity is just not possible. None of the measures proposed in these essential requirements shall therefore be seen as incompatible with safety related essential requirements."

- Nowhere in the world an Airworthiness Authority is empowered to take the decision to stop an activity. The NPA does not describe the planned respective responsibilities as regards to such a decision.
- Despite the willingness of the legislator to avoid incompatibilities between safety and environmental protection essential requirements, it is reasonable to anticipate that for products design, cases will arise where the environmental protection objectives will not be fully compatible with those of safety. This situation is not covered by the proposed regulation, as well as the role of the Agency or other EU institutions in the decision process, should a decision be necessary as regards to the acceptability of a particular design.

comment 605

comment by: ADV

We are concerned that EASA has noted (in Paragraph 33) that '*ICAO standards are generally understood as setting minimum standards. This deprives the Community from its right to decide on alternative systems*'. This is not our interpretation of the purpose of ICAO standards for environmental protection.

We maintain our position that the setting of standards and recommended practices is the fundamental function of ICAO and this should be preserved so as to ensure worldwide consistency of aviation rules. If EASA were able to contribute to the harmonised implementation of ICAO SARP's, then we would strongly support its function in this area, but we could not condone any move to set up specific European standards.

comment 612

comment by: Walter Gessky

Item 34:

It is recommended to keep the Article 6 to the basic regulation as it is. In addition essential requirements should be written for those products for the moment not covered by ICAO Annex 16 Vol. 1 and 2. Than the Implementing rules are only required for the products not covered by ICAO standards.

comment 613

comment by: Walter Gessky

Item 35:

The objectives should be extended and to ""...noise and emission **the use of dangerous materials used and the impact to crew and passengers in the operation** from civil aviation.."

Justification:

In a total system approach, the impact of dangerous materials used in the production and the impact to crew and passengers in the operation includes f.e.

- health hazards for crew and passengers coming from high ozone concentration in the aircraft, cosmic radiation
- impact of dangerous goods transported in the case of an incident and

accident

- dangerous goods installed in an aircraft like radioactive materials
- dangerous materials used in an aircraft, parts and appliances
-

comment 614

comment by: *Walter Gessky*

Item 37:

It should be verified that tasks in the essential requirements according Annex I, III and IV are not duplicated in the essential requirements for environmental protection.

comment 628

comment by: *BALPA*

Para 32 - There should never be any safety trade offs for economic objectives; non expert politicians should not get involved. EASA's remit is safety.

Environmental objectives in general: ICAO is slow to produce standards, however, for EASA to regulate ahead of industry standard could lead to immature policy being implemented that could affect the European industrial success. For example, open rotor design. Europe could mandate a particular design feature for noise reasons, however, the US could have an economic design with obvious advantages; a dangerous road to go down?

comment 668

comment by: *NATS*

Paragraph 34: it is recommended that such requirements only prescribe the measures that shall be implemented to mitigate all significant environmental harmful effects of civil aviation at a high uniform level. In respect to the ATM aspects, NATS considers that this fails to fully take into account the aims of the proposed SES II Performance Scheme and the role of the anticipated Performance Review Body in assisting with the development of European level targets. High level performance targets need (and should) not be technology dependent. The Performance Scheme will allow for progressive incremental improvements in performance (and thus the setting of stricter targets) as operational and technological developments occur. Further environmental Performance Targets must be set giving full consideration to the many other Performance targets and take full account of any necessary trade-offs. The Performance Scheme will be the appropriate mechanism to achieve this.

comment 669

comment by: *NATS*

Paragraph 37: NATS believes this to be an over-simplification. There are already existing trade-offs between environmental and safety considerations (e.g. level-capping to ensure high-level sector capacities are not exceeded). The alternative is to reduce declared capacity.

comment 709

comment by: *Department for Transport*

It is important that any noise and emission standards for aircraft be discussed and agreed within the ICAO framework. Where specification standards do not exist such as for tilt rotors and open rotors, EASA should use its influence and expertise to encourage ICAO to set standards.

If different standards were adopted this could cause problems and have cost implications for manufacturers who would at the very least wish to continue to benefit from harmonised standards or functional equivalence. Approving each aircraft to multiple standards would prove expensive and could result in competition between regulators to set the most desirable standard and thus would not guarantee to raise standards.

comment 732

comment by: *Rolls-Royce plc [DGJ]*

Regarding paragraph 37, whilst we understand this position in principle, the proposed essential requirements appear simplistic in that they do not recognise that there will be many cases where attempts to minimise environmental impact can only be achieved at the expense of safety margin. As suggested, the safety requirements must remain uncompromised but the proposed regulatory texts offered in this NPA do not make this clear.

comment 733

comment by: *Rolls-Royce plc [DGJ]*

Regarding paragraph 34, Rolls-Royce is in full agreement that, where ICAO standards exist, the essential requirements and their implementation must be fully consistent with the ICAO framework. However, we are concerned that the proposed essential requirements make no reference to ICAO at all, leaving some considerable uncertainty in the interpretation of the regulation.

It might have been easier to review this NPA if the Rulemaking task had been broken down into independent, manageable subtasks. One independent subtask would have been, for example, to derive Essential Requirements for products already covered by ICAO Annex 16.

comment 741

comment by: *General Aviation Manufacturers Association (GAMA)*

GAMA fully supports the environmental objectives as stated in the NPA. However, it is extremely dissapointing and of significant concern that the proposed essential requirements in this NPA (particularly for product design) are not consistent with these objectives. For example:

- Paragraph 34 - "these essential requirements and their implementation measures should be fully consistent with the ICAO framework."
- Paragraph 35 - "this will involve taking into account technical feasibility, economic aspects and the benefits for the environment... Care has also been taken to ensure their compatibility with the corresponding ICAO Standards and Recommended Practices."
- Paragraph 37 - "essential requirements for environmental protection come in addition, and not contrary, to other essential requirements, most importantly the essential requirements for safety... None of the measures proposed in these essential requirements shall therefore be seen as incompatible with safety related essential requirements."

It is not clear as to the meaning/intent of the statements in paragraph 36 with respect to providing guidance for industry when developing new activities or products. hese statements seem to be incorrectly grouping together industry research & development activities and industry development of new aviation products. There is a significant difference as to the appropriate and applicable requirements that provide guidance to industry during these different phases

of activity. When initiating the development of an aviation product, the detailed technical certification requirements and the acceptable methods of compliance must be known. Furthermore, it is completely unacceptable for requirements affecting the design of an aviation product to be applied retroactively unless there is a significant safety issue in which the new standard would be established through the appropriate process. If the EASA regulatory system causes the design standards to be unknown until after the development of a new aviation product, then industry will recognize this as a significant increase in risk and make the appropriate strategic decisions as to whether aviation products should be developed for the European market.

GAMA finds the general statement in paragraph 37 outlining the environmental objectives of this NPA to be completely unacceptable and inappropriate. It essentially states that would not only be acceptable, but that it is the environmental objective of this NPA to establish environmental essential requirements without regard for whether they would be technically feasible and economically reasonable. This is made clear when it states that "It may be the case that the combination of environmental essential requirements and safety essential requirements... make a certain aviation activity impossible. In such case it is necessary to find alternative solutions or accept that such activity is just not possible." This means that a new environmental requirement could be established that is so stringent that it can not be achieved and that the affected aviation activity is just not possible and would have to stop.

comment

867

comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION**Paragraphs 33 and 34*

ERA interprets ICAO standards as minimum standards. ERA does not agree that there should be EU wide standards in this area. All countries contribute to ICAO requirements. It would be to the detriment of the EU if there are EU specific requirements. Environmental instruments always come at a price and, if implemented in the EU only, the additional cost would reduce the competitiveness of the EU in comparison with the rest of the world.

Paragraph 35

ERA believes that a specific reference to safety is required in the second sentence to read "*Flexibility has been incorporated in the requirements so as to allow implementing rules to be adapted to the size and nature of the problem. This will involve taking into account SAFETY, technical feasibility, economic aspects and the benefits for the environment.*" ERA is also concerned over use of making certain aviation activities impossible as a result of the requirements. The only reason an activity should be impossible to perform should be for safety reasons only.

comment

900

comment by: *Cathay Pacific Airways***Paragraph 33**

One of the reasons for the establishment of the *Convention on International Civil Aviation* (the "Chicago" Convention) was to provide a global framework for the development of civil aviation. The States of Europe are all signatories to the Convention and major States are represented at the Council level of ICAO. Even if the assertion in paragraph 33 (see extract above) is true then the solution is to drive ICAO to "*address the full scope of measures, which need to be implemented in a balanced way*" on a global basis and not to adopt an EU regional policy.

comment

920

comment by: *Dassault Aviation***Paragraph 32**

DA asks to explain what kind of aircraft or engines flying to day are not included : eg. military aircraft?

Paragraph 33

The hard work of harmonization at ICAO/CAEP level WITH FAR Part 36 should be taken into account by EASA before publishing new rules > Fair competition and economic aspects must be recognized, as the aircraft are in an international market with a need for common rules.

The current gaseous emissions rules are proposed and discussed in CAEP working groups with all international aviation representatives (ICAO, IATA, certification authorities ...). These emissions can impact local air quality, regional air quality and global air quality such as greenhouse gases. As the market is international and the operation of aircraft can be worldwide, it is important to include economic consideration prior to publish new EASA rules. Worldwide harmonization effort of the rules minimize asymmetric economical impact.

Paragraph 34

DA understands that essential requirement will be at the level of basic regulation, while quantitative objectives for environmental protection would be kept at the implementing rule or CS levels. The explanatory text should be clarified. DA supports the last statement that Implementation measure should be fully consistent with the ICAO framework.

Paragraph 35

see before

Paragraph 37

Environmental aspects are important but may not trump all other considerations in a balanced multi criteria design. To this end DA proposes to introduce preamble 0.0 in the essential requirements, see text below.

comment

950

comment by: *Dassault Aviation***33**

Using ICAO standards as essential requirements for regulating environmental protection in the Community presents also other drawbacks. They are generally understood as setting minimum standards; their transposition into Community law, however, makes it impossible to deviate from them at all. This deprives the Community from its right to decide on alternative systems. This would be of particular value if the main aircraft manufacturing states within ICAO could agree on a common policy to be more stringent than Annex 16, as is the case in several safety areas, thus taking a leading role in the development of more environmentally friendly aviation products. ~~Moreover the absence of ICAO specifications for new technology, such as tilt rotors and open rotors, does not allow the Community to act while there is a clear need to do so to protect the environment. Last but not least, ICAO Standards do not address the full scope of measures, which need to be implemented in a balanced way to provide for the sustainable development of civil aviation.~~

However, any deviation from ICAO standards will have to take into account fair competition on the world market and economic aspects.

comment

1005

comment by: AEA

Paragraphs 33 & 34

AEA is concerned about the statement that *'ICAO standards are generally understood as setting minimum standards. This deprives the Community from its right to decide on alternative systems'*. This is not how AEA interprets the purpose of ICAO standards for environmental protection.

EASA indicated that the implementation measures *'should be fully consistent with the ICAO framework'* and *'avoid penalizing the European industry'*. In fact, the simplest way to achieve this would be to adopt the ICAO standards. All EU countries have been able to contribute to and have accepted the ICAO standards. If these are minimum requirements, any addition would invariably penalize the European industry and have a negative impact on the competitive position of EASA member airlines in relation to non-EASA airlines. AEA regrets that EASA provides no satisfactory explanation for not taking ICAO standards as a basis, nor does it quantify the benefits of its proposals in order to justify the costs.

Paragraph 35 & 36

It seems strange that EASA should need NPA 2008-15 to reconfirm the powers that it already has to *'mitigate health hazards.... related to noise and emissions from civil aviation'*, namely by setting certification standards for emissions (e.g. in CS-25, CS-34 and 36). If the EU requires better environmental performance, more stringent certification limits can be set, and even mandated retroactively. This is far more effective than training mechanics to perform approved/accepted maintenance procedures which will have no impact on noise and emissions.

Paragraph 37

If, as stated in Paragraph 34, it is EASA's intention to *'avoid penalizing the European industry'*, how can this environmental Essential Requirement *'make a certain aviation activity impossible'*? EASA should not have the power to prohibit certain aviation activities without proper substantiation, as this will have a negative effect on the level playing field. In addition, a realistic timeframe is necessary for airlines to adapt to a new situation.

**A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment
- Scope - Environmental objectives - Question 4**

p. 11

comment

13

comment by: KLM

Answer:

EASA shall not get involved in aviation environmental protection regulation

comment

29

comment by: Royal Aeronautical Society

Q4: In general, the proposed essential requirements meet the criteria described above.

However, to improve upon perceived shortcomings, it is suggested that changes and/or additions should be made to the essential requirements listed in Part II paragraphs 3.c, 4.a.1, 4.a.2, 4.b.3, 4.c.2 and 4.f.2. Please see these suggestions and the reasons why such are made listed below in my comments on **Part II. Essential Requirements**.

comment 67

comment by: *FRAPORT AG*

Fraport sees no necessity in changing the establishes rulemaking system. Therefore generally the ER's does not fulfill the needs of a complex airport.

comment 83

comment by: *Samuel WENGER*

Following the comments given under the main topics above, I consider that there is no need for specific essential requirements for Civil Aviation Environment Protection.

The following reflections indicate, why such essential requirements would increase regulatory activities and burdens, while producing no or only marginal benefits for aviation and its environment:

- All specific domains are already or will soon be regulated. The existing rules include the basic environment related requirements needed for a sound, sustainable development of civil aviation. Where a consensus exists that this might not be the case, the rules may be adapted.
- Specific essential requirements for environment aspects tend to discharge the actors in other domains from their responsibility towards the environment, starting with the rulemaking process. It is therefore important that environmental considerations are seen as essential and part of each domain or process.
- Where technical measures are appropriate (aircraft environmental characteristics), they are and shall continue to be defined through ICAO. CAEP has evolved to develop reasonable balances.
- The main environmental exposures occur and trigger reactions in the vicinity of aerodromes. Because of the wide diversity of their physical and political environment, there is little potential for generally applicable and useful regulations. To obtain a certain standardisation, the policy should be to prepare arguments (fact sheets) and recommendations (founded dos and don'ts) in respect to mitigation measures, e.g. operating hours, arrival/departure procedures, economic instruments, public relations, land use etc).
- Operational measures are mainly a matter of behaviour. While safe and environmentally friendly procedures are mostly defined by aircraft manufacturers (e.g. performance, flight profiles) and airports (e.g. arrival/departure navigation), operating people are responsible for adherence to these procedures. Behaviour is a matter of education and continuing sensibilisation, not of regulations.
- It is probably useful to verify that existing or planned human factors training modules contain appropriate informations on the environmental aspects of the respective activity. But the purpose shall not be to make everyone an expert in environmental matters. The main factor contributing to good adherence to rules and procedures is their simplicity and understandability. Environment protection must be 'part of', not a separate requirement.

comment 108

comment by: SAS Norway

The basis for the essential requirements as amendments to Part-21, CS-34 and CS-36 are seen to be partially adequate, but we question the location for 3 - Air traffic management and air navigation services, for 4- Air Operations, for 5 - Environmental awareness of persons active in the aviation system, and for 6 - Operating restrictions.

For 4 and 6 the logical placement for such requirements would be in EU OPS-1, for 5 the logical place would seem to be in Part 135 for technical personnel and in EU OPS-1 for operational personnel. For 3, ATS we have no specific placement suggestions.

comment 118

comment by: university of leiden - netherlands

1. I am considering the risk assessment perspective as introduced *sub* A.IV.35 of the NPA 2008-15 a cornerstone of the document and one of the crucial elements to EASA's intended broadening of scope. However, this most important perspective has not been given equally strong emphasis in the first part of Section B (and, consequently, also not in the major Section B.II). Therefore, I am proposing small changes to existing paragraphs B.I.1 to B.I.2, I suggest the revision of B.I.3 and the addition of one new paragraph ('B.I.4'). Together, these changes should give better guidance on the new ways to health & environmental risk assessment in (local) aviation practices.

2. Following the structure of the NPA: Essential Requirements in Section B.II should give operational value to the theoretical ideas raised in B.I. Whereas the present B.II.5 rightly specifies essential requirements of individual technical competence in environmental matters, this Section needs the complementary essential requirement explicitly oriented towards institutional or (total) system awareness. This could be achieved by addressing separately those persons in the system with explicit health and environmental responsibility.

The above two points imply that my answer to your Question 4 is negative: The Essential Requirements submitted for public review do not sufficiently meet the criteria laid down by its own Section IV, that is, the most important criterion 'appropriate risk mitigation' (35) needs better specification.

comment 138

comment by: EHPU

The essential requirements need a clear statement that they only apply to aircraft operated commercially.

The essential requirements need a clear statement that they do not apply to any aircraft below 115kg empty mass without pilot and fuel.

The essential requirements need a clear statement that they do not apply to any aircraft that are unpowered.

comment 144

comment by: British Gliding Association

It is beyond the resources of the BGA to comment on whether the criteria constitute a good basis for the regulation of aviation environmental protection. The BGA believes that if EASA believes that ICAO standards are inappropriate, the obvious solution is to engage with ICAO to ensure a level international

playing field approach to aviation environmental issues.

comment 160

comment by: *Aero-Club of Switzerland*

What kind of animal is this aviation environmental protection? Who protects whom from what? What is the extension your are writing of?

Protection of the environment is a global business. It has to be dealt with on a global scale. This is ICAO level, not EASA level.

We think, the non-EU-members of EASA will be obliged to oppose to such regulations for political reasons.

Justification: As far as we judge the situation, this idea is going very much beyond the limit of what non-EU-citizens will accept. The Agency wants to protect the environment. So why does it not take the first step in prohibiting the use of leaded aviation fuels from. let's say 2015? This would be a measure...

comment 172

comment by: *KLM Engineering & Maintenance*

Answer to Question 4)

KLM does not consider the essential requirements as proposed a good basis for the regulation of aviation environmental protection, because:

- The NPA does not provide substantiation for the effectiveness of the requirements (no RIA).
- Many requirements are so vague that they do not provide clear information on what the impact on the industry will be.
- It does not ensure similar national environmental regulations are removed.

comment 203

comment by: *ADVOCNAR*

L'EASA en regroupant un grand nombre de pays et de populations peut avoir une influence positive sur l'OACI. L'organisme international édicte des règles minimales pour ne pas pénaliser les pays en voie de développement. Des restrictions visant à la protection des riverains ne sont en aucun cas des mesures protectionnistes édictées par l'Europe, mais bien pour la préservation de l'environnement. L'Europe pourrait proposer, vis-à-vis de ces pays, de compenser ces restrictions par des aides incitant les pays concernés à moderniser leur flotte, ce qui aurait un effet bénéfique sur la sécurité (il y a un facteur 10 entre les pays les plus sûrs et les moins sûrs), un effet bénéfique sur les pollutions sonore et chimique, ainsi que sur la consommation de produits pétroliers, donc sur l'effet de serre.

Translation by Centre de Traduction

By bringing together a large number of countries and populations, EASA can bring a positive influence to bear on the ICAO. This international organisation enacts minimum rules in order not to penalise countries that are in the process of development. Restrictions aimed at protecting local residents are not in any case protectionist measures enacted by Europe, but are intended rather for the preservation of the environment. Europe could propose, in respect of these countries, compensation for these restrictions by means of grants encouraging the countries concerned to modernise their fleet, which would have a beneficial

effect on safety (there is a factor of 10 between the most safe and the least safe countries), a beneficial effect on instances of noise pollution and chemical pollution, as well as on the consumption of petroleum products and consequently on the greenhouse effect.

comment 208

comment by: BDF - German Airline Association

These regulations are a good basis but they impose a stringent burden on the operation of an airline. Sometimes there may have to be done pay offs between noise and emissions. Shall an aircraft fly aster to avoid or to decrease a delay? A delayed aircraft may cause problems at airports with night curfews. This may result in diversions which lead automatically to further emissions and additional noise.

Limitations and prohibitions may increase emissions and/or noise.

From the perspective the German Airlinest he avoidance of emissions should be the first priority before any considerations of noise or other equivalent implications.

comment 214

comment by: EUROCOPTER

Eurocopter consider that the essential requirements could constitute a good basis for environmental protection provided that Part 21 will be modified in order to specify the quantified limits defined in ICAO Annex 16 in order to limit the compliance demonstration and to take into account the feasibility and economical reasonableness. This is understood as EASA's intention and seems to be really necessary.

comment 236

comment by: jobeckers UECNA

UECNA appreciates the extended responsibilities of EASA, especially in view the deficit of protection against aircraft noise has been increasing. More intensive measures for environmental protection are required. According to our experience in the past we are forced to be observant. This also includes apparent indirect aspects.

One of the reasons for the increased aircraft noise emissions is the rapid growth of air traffic. This growth is spurred by subsidies and tax exemptions, which ground transport does not enjoy. These subsidies provide aircraft manufacturers and operators as well as airport operators with a cost advantage over ground transportation.

The elimination of these direct and indirect subsidies is one of the effective "tools" to limit the growth of air traffic by letting customers decide, whether they want to pay higher prices, or choose ground transportation instead.

comment 276

comment by: UK CAA

Page No: 11
Paragraph No: Question 4

Comment:

The UK CAA does not believe that the attached Essential Requirements (ERs) meet the criteria described in the NPA and do not constitute a good basis for

the regulation of aviation environmental protection. The ERs do not address the fundamental issue of the potential conflict of interests between safety and environmental regulatory objectives. The ERs must address the need to acknowledge the priority of safety even if it is accepted that in certain circumstances, operations may not be justified due to environmental concerns. However where operations take place/or services are provided, safety must not be compromised on environmental grounds.

Justification:

The Essential Requirements:

- Do not adequately reflect the primacy of safety over environmental issues.
- Fail to recognise wider EU initiatives designed to improve capacity in European ATM and aerodromes.
- Are often too prescriptive and detailed to allow proportionate Implementing Rules and AMCs to be developed.
- In some cases repeat safety/airworthiness requirements.
- In some areas the scope is too wide and takes in issues which may be better addressed by market and/or local mechanisms.

comment 291 comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*
 The agency shall primarily focus its activities on the safety relevant aspects and deal with environmental key matters only as far as absolutely necessary.

comment 297 comment by: *Luftfahrt-Bundesamt*
Question 4:
 The LBA supports the proposed implementation of essential requirements for environmental protection. Nevertheless, we would appreciate to receive detailed information on future rulemaking activities in the field of environmental protection which is planned by the agency after the implementation of the proposed essential requirements. The given information in this NPA is not sufficient.

comment 332 comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)*
 The proposed essential requirements do not constitute a good basis for regulation of the aviation environmental protection. Language in the essential requirements does not reflect how environmental issues should be treated in a legal text.
 In section 1 we do not consider that provisions such as "Aviation products must be designed to be as quiet as possible" and "The following emissions species shall be mitigated as much as possible" are appropriate. There is a need for a balance between costs and benefits including due regard to trade-offs between different emissions species and their environmental impacts.

comment 342 comment by: *BMVBS, DE*
 In general BMVBS supports the approach laid out by the draft for the

index of contents of the 'essential requirements' in the appendix of the NPA 2008-15. From a BMVBS point of view, the crucial point of the rulemaking activity connected to the creation of essential requirements for environmental protection is the setting up of overarching environmental certification requirements for noise and emissions. These requirements should go well beyond the provisions of ICAO Annex 16 and live up to the Agency's task of providing a **high** uniform level of environmental protection to the European citizens. In order to fulfill this task it is necessary to create environmental certification criteria for all different categories of engine or turbine powered aircraft.

comment 384

comment by: *International Air Transport Association (IATA)*

Question 4: *The Agency is interested to know whether stakeholders consider that the attached essential requirements meet the criteria described here above and whether they constitute a good basis for the regulation of aviation environmental protection within the envisaged scope of the extended EASA system. The Agency also welcomes any suggestion to improve the essential requirements.*

- **ATM and ANS** - One of the most important areas where EASA could help is in promoting the accelerated implementation of better airspace management within Europe, which would result in significant environmental benefits. We must however be mindful of potential functional overlaps with Eurocontrol in the implementation of SESAR and SES policy. However, IATA believes that ATM and ANS providers should not need to focus on more detailed flight operational issues such as for example operational consequences related to open rotor technology.
- **Operations** - IATA sees no need for EASA to interfere with cost-driven business decisions made by operators. For example, it makes no sense for EASA to try and prohibit tankering, as this practice is the direct result of fuel prices differentials across various jurisdictions. To give another example, Section 4.c.2 provides that a flight "must not be continued" unless "known conditions continue to be at least equivalent" to the requirements addressed in the sections on flight preparation (4.b). This requirement is totally unworkable and could essentially inhibit commercial aviation altogether, harming the public and both domestic and international commerce. Would it require a flight to land at the nearest airport rather than divert to fly around a weather system? Also, under the Chicago Convention, any such requirement would be unenforceable with regard to non-EU carriers outside EU airspace.
- **Operating restrictions** - As stated earlier, IATA is very concerned that what is referred to in paragraph 30 as the EASA system providing "a more uniform implementation of operating restrictions" would in practice mean a blanket approach to operating restrictions, regardless of whether the environmental need was established. IATA would oppose such an approach.
- **Economic measures** - IATA is very concerned to see the statement in paragraph 31 that "trade-offs between safety and economic objectives should be made on political rather than on executive level". This implies that according to EASA, flight safety would be tradable against economic objectives. IATA does not consider this acceptable.
- **Awareness of maintenance personnel** - As per EASA Part 145, the activities of maintenance personnel are strictly limited to following approved maintenance instructions issued by the OEM and/or Part 21

organisation. Consequently, requirements to educate maintenance personnel on environmental issues would not result in any change in their activities but would result in considerable additional training cost, without any demonstrable benefits to the environment. In view of the above, IATA feels that environmental regulations should not be part of licensing or training requirements for maintenance personnel.

- As mentioned earlier, IATA is of the view that global consistency of aviation rules is of paramount importance and ICAO's international standard setting role should be preserved. Therefore, IATA would be opposed to EASA creating a framework for setting European standards. We also disagree with the view expressed in paragraph 33 that "ICAO standards are generally understood as setting minimum standards. This deprives the Community from its right to decide on alternative systems". This is certainly not our interpretation of the purpose of ICAO standards for environmental protection.

comment 398

comment by: *General Aviation Awareness Council, UK*

We do not agree with the premise that any essential requirements are required for other than passenger transport operations. If any Essential Requirements applicable to light aviation emerge after this consultation, in spite of our opposition, the present proposals need such drastic revision that it is beyond our scope and resources to attempt the task.

We disagree that [paragraph 33] " . . . Using ICAO standards as essential requirements for regulating environmental protection in the Community presents also other drawbacks. The ICAO Standards are a reasonable basis for environmental regulations for EASA States and they do not need to strengthened.

We do not agree that EASA should be granted an overarching role in technological development, on the grounds quoted: " . . . the absence of ICAO specifications for new technology, such as tilt rotors and open rotors . . . " and " . . . ICAO Standards do not address the full scope of measures . . . for the sustainable development of civil aviation." The industry is fully alive to the need to minimise environmental impact and there is no need for additional EASA requirements. ICAO can develop such standards as and when required.

comment 409

comment by: *Light Aircraft Association*

Answer to Question 4

Although the Essential Requirements shown in Annex B are identified as a Draft and for information purposes only, the wording is so draconian that, if adopted, they would have the effect of grounding almost all aviation and General Aviation would never be able to recover.

The current and future ICAO Standards are adequate for International purposes allowing the interoperability of aircraft from and to all parts of the World. Defining harsher standards could prevent the free access to World markets for aviation products into and out of the EC. We disagree with the statement in paragraph 33 that the ICAO standards are just a minimum, they are perfectly adequate, and agreed by the major aircraft constructing countries, and do not need to be more extreme.

If any "essential requirements" were to be drafted, there would have to be a clause to allow existing aircraft to continue, i.e. the regulations must not be

retrospective as this would ground many historic aircraft.

Response from the Vintage Aircraft Club

The essential requirements are impractical.

Such statements as "particularly harmful to the environment" or "noise and emissions are minimised as much as possible" are impossible without defining some practical parameters.

Section 6 is particularly onerous with regard to historic aircraft as imposing limitations or prohibition of flights over certain areas or of certain aircraft or at certain times would ground most vintage machines purely because they were designed in a different age.

Historic aircraft operate within the bounds of their design and manufacture in the period they were conceived and must be allowed to continue flying without undue hinderance.

comment 446

comment by: *Bae Systems*

I am concerned that environmental considerations are not applied retrospectively to existing aerodromes in a manner which will have a sever impact on that aerodromes operations.

In the draft Essential Requirements Para 38 the comment that in future certain aerodromes of flight levels could only be used if the meteorological conditions are favourable causes some concern. Apart form poor visibility/low cloud, what considerations are there in this regard?

comment 451

comment by: *Aerospace Industries Association*

Believe that the technical feasibility and economic reasonableness criteria needed for aircraft design are also applicable to aircraft operations, particularly when operational restrictions may result from technology/design issues.

comment 486

comment by: *Fridrich Jan*

My opinion is that proposed essential requirements do not reflect the specific needs of sports and recreational aviation in Europe. As typical or most of EASA regulations they are more focused to the commercial air transport, therefore it is difficult to answer the question. I think that any additional environmental regulations is not necessary for our segment of aviation.

comment 493

comment by: *Air Transport Association of America, Inc. (ATA)*

ATA believes that the Draft Essential Requirements are unnecessarily and unacceptably intrusive, and in many cases would be inconsistent with ICAO's role and/or in violation of the Chicago Convention. All of them are too vague to serve as anything other than the most basic starting points for any policy discussion. In separate comments filed on this NPA, IATA has enumerated a number of the vague terms found throughout the draft, and ATA agrees with these observations. Several proposals would improperly place regulatory responsibilities upon pilots rather than operators. We offer specific views about each of the proposals in the categories of "Air Operations" and "Operating restrictions," which would apply directly to airlines, along with additional

observations about the other categories.

comment 525 comment by: *Royal Danish Aeroclub*

Answer to Question 4:

No comments.

comment 528 comment by: *AESA*

We believe that there is necessary a wider strategic debate about the objectives of these essential requirements and how they could be introduced and in order to get what.

comment 542 comment by: *Deutscher Aero Club e.V. (DAeC)*

a) No additional regulations for Ultralight Aircraft.

b) Include and take care about disturbance effects where appropriate; avoid additional legal regulations, but support voluntary solutions.

comment 551 comment by: *ECA - European Cockpit Association*

- The draft essential requirements of NPA 2008-15 only partly achieve the desired environmental objectives and some create critical discrepancies with EASA's principal objective.
- For details see comments on the individual ERs below.

comment 577 comment by: *The Norwegian Ministry of Transport and Communications*

The Norwegian Ministry of Transport and Communications supports the objectives with the caveat that enforcement responsibility is delegated to the level of the member states. If this is not the case, the question must be posed again and answered during the process of drafting implementing rules where the various needs and interests will have to be balanced.

comment 583 comment by: *ADV*

We are extremely concerned about the proposed Essential Requirements which risk resulting in significant extra costs for questionable environmental benefits. We therefore urge EASA to reconsider this proposal and to develop a comprehensive Regulatory Impact Assessment (RIA) before tabling a new proposal in close coordination with all the affected stakeholders.

comment 592 comment by: *British Airways*

We are concerned that EASA has noted (in Paragraph 33) that '*ICAO standards are generally understood as setting minimum standards. This deprives the Community from its right to decide on alternative systems*'. This is not our interpretation of the purpose of ICAO standards.

A significant effort has been made in the past to harmonise the then variations in existing requirements of individual nations to a common standard - that of ICAO standards and recommended practices (SARP's). It would be a significant retrograde step to undo all this important work and revert back to the totally unacceptable situation that previously existed. As a general principle, we are deeply opposed to 'unilateral, local or regional standards', which has been demonstrated in the past to result in the application of unnecessary additional costs and restrictions to EU carriers abroad and, in the case of the "Hush-kit" Directive, also cause difficult trade and legal issues for the European Union.

In the case of missing or standards in the process of being constructed within ICAO, Annex 16 volume 1 already provides a method whereby advice in lieu of standards can be published in a shorter time period whilst the full, authorised standards are still in the process of being agreed. This could be used to cover all the examples cited in the EASA NPA consultation document. It is further noted that although the EU has only "observer" status on ICAO CAEP, a number of EU Member States enjoy the status of full "Members" and therefore already have the opportunity to direct ICAO in this area.

We maintain our position that the setting of standards and recommended practices is the fundamental function of ICAO and this should be preserved so as to ensure worldwide consistency of aviation rules. If EASA were able to contribute to the harmonised implementation of ICAO SARP's, then we would strongly support its function in this area, but we could not condone any move to set up specific European standards.

comment 608

comment by: *Walter Gessky***Question 4:**

For the moment ATM and aerodromes should not be included in the essential requirements, before the Council and Parliament provided their position to the proposed extension of the basic regulation. Only environmental protection requirements required by ICAO SARP's should be taken into consideration.

Any Commitment to apply environmental protection requirements has to be adopted in a common sense with other EU legislation with regard to environmental protection

In the aerea of aviation structure (ATM/ANS and aerodromes) only very flexible implementing rules should be adopted. MS hav tot implement the rule, and find a balance between protection against noise and emission.

In general the criteria constitute a basis but

- a. are to detailed,
- b. includes duplication to the existing essential requirements,
- c. does not include impact of other environmental impacts,
- d. in a total system approach the essential requirements should also include impact of
 - a. dangerous goods
 - b. ozone concentration (cabin and outside)
 - c. cosmic radiation
 - d. radioactive material (might be installed in a product like uranium counterweight on the B 747)
 - e. fuel dumping in air
 - etc

comment 644 comment by: Flughafen Paderborn Lippstadt GmbH

Our concern is that the proposed Essential Requirements risk bloating bureaucracy at significant extra costs for all stakeholders with questionable and only marginal environmental benefits. To avoid incremental costs for all stakeholders EASA should reconsider this proposal and to develop a comprehensive Regulatory Impact Assessment (RIA) before tabling a new proposal in close coordination with all the affected stakeholders.

comment 670 comment by: NATS

NATS does not believe EASA should consider extending its scope at this time to include the environmental aspects of ATM/ANS and Aerodromes - it should focus on its priority objective of aviation safety and first consolidate its technical expertise in ATM/ANS and Aerodrome Safety before considering other areas, particularly since the implications of the proposed SESII Performance Scheme have not yet been fully determined. As such it would be premature to assess the Essential Requirements in detail.

comment 677 comment by: skyguide

The experience with Safety requirements (ESARRs) in a recent past has shown that requirements should be unambiguous and detailed enough. Otherwise, when too much room for interpretation is let to stakeholders, very different answers are developed and implemented, leading to more inefficiency in the system.

The requirements here more look like principles that could be guidelines for further analysis leading to requirements production.

In addition, operating restrictions should not be brought at this stage of the analysis. The requirements should specify a system to develop environmental solutions. One of these solutions could be operating restrictions. In other words, this NPA should trigger the definition of mechanisms but not already their outcome.

comment 679 comment by: skyguide

With regard the 'envisaged scope of the extended EASA system',

Even if it could be considered that there is a risk of conflict of interest with safety within EASA, a positive aspect is that a same body addressing Safety and Environment matters reduces the risk of contradictory requirements that would exist if two different entities were in charge.

It is also true that obvious commonalities exist in the ways Safety and Environment should be addressed. The experience gained in Safety methodologies could be used in the EASA but also in the ANSPs to address Environment; Hence a possible gain in efficiency.

comment 683 comment by: AgustaWestland

AgustaWestland consider that the essential requirements could constitute a good basis for environmental protection provided that Part 21 will be modified

in order to specify the quantified limits defined in ICAO Annex 16 in order to limit the compliance demonstration and to take into account the feasibility and economical reasonableness. This is understood as EASA's intention and seems to be really necessary.

comment 730

comment by: *Rolls-Royce plc [DGJ]*

Rolls-Royce is not yet convinced that the attached Essential Requirements constitute a good basis for the regulation of aviation environmental protection within the envisaged scope of the extended EASA system. Since the NPA does not propose either the necessary corresponding amendments to the Articles of the Basic Regulation or the Implementing Rules which might apply, it has been extremely difficult to review the proposed Essential Requirements in the correct context.

Central to this is the envisaged extent of Agency involvement in administering the regulation of environmental protection (eg the degree to which subsidiarity might apply), and the corresponding amendments required to Article 17.

Regarding the proposals made and on an assumed understanding of the intended involvement of the Agency in this regard, a number of detailed concerns are evident including, but not limited to, the following:

- The basic premise must be that, where ICAO standards have been set for given types of engine or aircraft, these are the standards which apply and there must be legal certainty of this. It would not be acceptable to have different sets of requirements in Europe from those with which we have to show compliance in the rest of the world. This is accepted in paragraph 34. However, the proposed Essential Requirements do not make this clear.
- Introduction of new environmental impact regulation must not diminish the existing aircraft safety regulation. The use of terminology such as "products must be designed to be as quiet as possible" is loose and does not recognise that what is "possible" is often limited by what is necessary to maintain safety. Whilst Rolls-Royce understands that the intent of the text was to recognise this limitation, the proposed words are not clear.

comment 745

comment by: *FAA*

The Draft Essential Requirements do not constitute a good basis for the regulation of aviation environmental protection in their present form. The present proposal falls short in many areas. The FAA recommends the withdrawal of the Draft Essential Requirements and a convening of relevant stakeholders in order to develop a new draft that would form the basis for effective EASA regulation.

Notwithstanding the recommendation to withdraw, the following comments address some, but not all, of the provisions that require a different approach or additional clarity, such as, at a minimum, eliminating from the Draft Essential Requirements all superlative statements such as "as much as possible", "as quiet as possible", or "may not any...", which would have the effect of limiting EASA's range of options in drafting implementing rules and rendering moot stakeholder input.

1. Product design, manufacture, and maintenance

In paragraph 1.a., the requirement that aviation products be designed to be

"as quiet as possible" is subjective and should be made more clear. Manufacturers are already incentivized by the market to design their products for customers that want their aircraft to meet the most stringent noise requirements. Recall the example of a launch customer specifying that the A380 meet noise requirements at London Heathrow. In order to do so, the aircraft was made heavier to meet the requirement but consequently creates more emissions in order to carry that weight.

Paragraph 1.c. Literal translation of the paragraph would encourage manufactures to design systems such that trade-offs among emissions species would be minimized, rather than optimizing trade-offs among emissions species for the best environmental performance based on sound science and knowledge of the full impacts of emissions species throughout the aircraft's flight. Sound science and knowledge are needed to determine the optimal environmental performance of an aircraft and requires further study and international agreement

1.g. The requirement that "an aviation product must not have design features or details that are particularly harmful to the environment" is subjective and ambiguous. Further clarification is needed, including an explanation as to the type(s) of problem(s) or feature(s) that this requirement would seek to address.

2. Aerodromes

This section includes ambiguous language: noise and emissions from an aerodrome's aviation activities, based on its design and operations, must be "minimized as much as possible" and, in paragraph 2.i, "an aerodrome and its aviation activities may not constitute or create any particular unacceptable risk for, or damage to, the environment." These are subjective and require further clarification.

Moreover, in the section on aerodromes, there is no acknowledgement of safety considerations coming first.

3. Air traffic management and air navigation services

The section on air traffic management introduces a new concept: "maximum environmental airspace capacity." It is undefined and requires further clarification and reconciliation with safety considerations for airspace capacity.

4. Air operations

The section on air operations proposes to address problems that may not exist and to diverge from ICAO principles.

With regard to 4.a.1., we wonder whether these responsibilities already exist in the form of requirements for the safe, optimal operation of aircraft by crew. Moreover, that the pilot in command would be required to "give all commands and take any appropriate actions for the purpose of securing the operation in an environmentally compatible way" raises the reasonable question of specific links to the Chicago Convention and its Annexes. We are not aware of any such links. Moreover, "in an environmentally compatible way" is ambiguous and needs further clarification.

With regard to 4.a.2. on hazardous materials, we encourage EASA to ensure

that the Draft Essential Requirements and potential Implementing Rules are fully consistent with Annex 18 of the Chicago Convention.

With regard to the draft flight preparation and operation requirements (4.b. and 4.c.), these would be new requirements, not linked to the Chicago Convention, and applicable only to holders of air operating certificates (AOCs) issued in the Community. The aim of these requirements and the problem(s) they seek to address are unclear. Again, we note that taking safety into primary account is not acknowledged here.

In 4.c.1., the requirement that "an aircraft must be operated in a way that minimizes as much as possible the impact of its noise, its emissions and any subsequent environmental impacts" is ambiguous and needs further clarification.

The operations requirements under 4.d., 4.e., and 4.f. are not linked to any ICAO principles directly, although they appear to be modeled on safety principles. The concept of "continuing environmental compatibility" is new and requires further clarification.

These types of operations matters would be better addressed at the global level in ICAO, where Member States would be welcome to propose consideration of such concepts.

5. Environmental awareness of persons active in the aviation system

The idea of requiring such "environmental awareness" by pilots and mechanics is a laudable concept. It would be worth investigating whether the key outcomes of such environmental training are already resulting from current training and practice by operators. After all, operators, including their pilot and mechanic employees, are incentivized, after safety considerations, to operate and maintain their aircraft in the most efficient manner possible. This might be better addressed through application of an environmental management systems (EMS) approach.

6. Operating restrictions

The Draft Essential Requirements allow for operational restrictions to be put in place "when the combined implementation of the essential requirements prescribed here above do not provide for sufficient mitigation of the impact of civil aviation on the environment or on human health and welfare." This construct is ambiguous. "Sufficient mitigation" on health and welfare must be defined. Moreover, with regard to noise, the Draft Essential Requirements do not reference Directive 2002/30/EC on the Balanced Approach adopted by ICAO, placing this component of the Draft Essential Requirements at odds with existing Community legislation, which was the result of sensitive international negotiations.

Operational restrictions should be a last-resort measure to address aviation's environmental impact. As discussed in the response to Question 3 above, to the degree the Community determines that a central decision-maker should be established to harmonize the process by which operational restrictions are evaluated in the Community, then that decision-maker should consider recommendations for such restrictions from local authorities and evaluate the proposals against specific criteria, including, for example, the safety implications and the impact on the EU air transport system and with

international partners. A transparent process that takes into account safety and economic impact (particularly on the broader air transport system) should be put in place, not simply a limited list of possible operational restrictions.

comment 746

comment by: *General Aviation Manufacturers Association (GAMA)*

No, GAMA does not believe the proposed essential requirements meet the objectives discussed in the NPA nor do they constitute a good basis for the regulation of aviation environmental protection.

GAMA commends EASA for its effort to take a synergistic approach to the environmental regulation of aviation. However, the text of the NPA raises some serious concerns regarding the implication throughout the NPA that safety could potentially take a back seat to environmental compliance in the regulation of aviation in Europe. Likewise, although the NPA notes that the proposed essential requirements should be "consistent" with the ICAO framework, in fact the text conflicts with the principles of the Chicago Convention in several important areas.

Another significant concern is that the NPA delves into specific design parameters as possible requirements for environmental protection. "The purpose of this NPA is to discuss and define how the EASA system could best contribute to the environmental compatibility of civil aviation... This could lead to amending... the Basic Regulation, to define broader, performance based, essential requirements for environmental protection... (para 1)" Unfortunately, several areas within the the context of this NPA do not even consider performance based requirements and instead provide prescriptive or completely subjective requirements that do not necessarily achieve the environmental objectives.

Although the NPA states that "No changes are considered here" for aircraft design already subject to environmental rules (para 18), the proposed essential requirements for product design would establish many new requirements which significantly change the requirements by which manufacturers must design aircraft despite the fact that these aircraft are already subject to common performance based environmental rules.

GAMA supports several environmental objectives as stated in the NPA. However, it is extremely dissapointing and of significant concern that the proposed essential requirements in this NPA (particularly for product design) are not consistent with these objectives. For example:

- Paragraph 34 - "these essential requirements and their implementation measures should be fully consistent with the ICAO framework."
- Paragraph 35 - "this will involve taking into account technical feasibility, economic aspects and the benefits for the environment... Care has also been taken to ensure their compatibility with the corresponding ICAO Standards and Recommended Practices."
- Paragraph 37 - "essential requirements for environmental protection come in addition, and not contrary, to other essential requirements, most importantly the essential requirements for safety... None of the measures proposed in these essential requirements shall therefore be seen as incompatible with safety related essential requirements."

In fact, several of the proposed essential requirements are more consistent with the completely unacceptable and inappropriate environmental objective discussed in paragraph 37 which essentially states that environmental

requirements could be set without regard for whether they would be technically feasible and economically reasonable and that it could therefore be so stringent that it can not be achieved and that the affected aviation activity is just not possible and would have to stop.

Additional comment is provided in response to each of the paragraphs identified above as well as in response to some of the specific proposed essential requirements.

comment 758 comment by: *Europe Air Sports PM*

Opinion of EAS is that proposed essential requirements do not reflect the specific needs of sports and recreational aviation in Europe. They are more focused to the commercial air transport, therefore it is difficult to answer the question. We are of opinion that any additional environmental regulations is not necessary for our segment of aviation.

comment 765 comment by: *Light Aircraft Association of the Czech Republic*

Opinion of LAA CR is that proposed essential requirements do not reflect the specific needs of sports and recreational aviation in Europe. They are more focused to the commercial air transport, therefore it is difficult to answer the question. We are of opinion that any additional environmental regulations is not necessary for our segment of aviation.

comment 773 comment by: *APAU*

In APAU's opinion the proposed essential requirements do not reflect the specific needs of sports and recreational aviation in Europe. They are more focused to the commercial air transport, therefore it is difficult to answer the question. We are of opinion that any additional environmental regulations is not necessary for our segment of aviation

comment 798 comment by: *ECOGAS*

Whilst recognising the importance of environmental considerations, ECOGAS would like it clarified that environmental regulation would never compromise or reduce safety levels.

ECOGAS urges EASA to continue to work within the ICAO Framework For Environmental Regulation. We regard it as essential that aviation works to common, internationally-accepted environmental standards. Based on ICAO Annex 16, all sectors of the aviation industry have put in a lot of effort to achieve close harmonisation between the European and American environmental regulations. This coordination must be maintained.

comment 808 comment by: *Satu Routama*

4. The essential regulations listed in NPA 2008-15 are reasonable, but according to Finavia's view the present national regulatory system is sufficient. Regulation of aviation environmental protection is best done by the local level.

comment 814

comment by: *IACA International Air Carrier Association*

The environmental impact of maintenance activities is fully determined by the maintenance data produced by (Supplemental) Type Certificate holders and Part 21 Design Organisations. Consequently, any requirement to educate maintenance personnel on environmental issues will not result in any changes to the activities of maintenance personnel, but it will result in considerable training costs, without any demonstrable benefits to the environment.

IACA challenges the proposals on the environmental awareness of persons active in the aviation system, such as flight operations staff, maintenance staff and others. Detailed requirements for training programmes for such persons would be extremely costly and would provide limited environmental benefits. IACA therefore urges EASA not to over-regulate in those areas.

IACA also rejects the proposal (ref. Para. 3.a.3) requiring ATM providers to declare a maximum environmental airspace capacity. It is imperative that ATM organisations exclusively deal with flight safety and not with more detailed flight operational issues, as this will adversely affect flight safety. It would be inappropriate to apply common rules to manage environmental operating restrictions. It is essential that any operating restriction is proportionate to the issue, would only apply where there is a demonstrated need. Imposing aircraft to fly around certain areas could result in extra emissions and fuel burn. The role of ATM is to ensure the safe separation of aircraft whilst maintaining the efficiency of aircraft operations and limiting environmental impact.

IACA considers that the essential requirements do not constitute a good basis for the regulation of aviation environmental protection.

IACA deplores the obscure wording in EASA's text and regrets to missing references to safety considerations, which should be placed above environmental priorities.

See our comments on the essential requirements hereinafter.

IACA would further like to give comments on EASA's introductory text to the question:

- § 33. IACA stresses that any measure that is more stringent than the ICAO standards imposed on EU airlines will reduce significantly the competitiveness of European airlines. Therefore, IACA resists to measures above (or outside) ICAO norms.

- § 34. IACA fails to understand why the crucial word "safety" is missing in the 6th line of the text, before the wording "technical feasibility,"

comment 822

comment by: *CAA FI*

The proposed essential requirements seem to be appropriate in aiming for environmental protection, but the implementing rules should take the local conditions and differences into account (see reply to Q3).

comment 827

comment by: *Munich Airport*

We are extremely concerned about the proposed Essential Requirements which risk resulting in significant extra costs for airports, air navigation service

providers, airlines, maintenance providers and other stakeholders for questionable environmental benefits. We therefore urge EASA to reconsider this proposal and to develop a comprehensive Regulatory Impact Assessment (RIA) before tabling a new proposal in close coordination with all the affected stakeholders.

We are concerned that some of the proposals might conflict with safety objectives. For example paragraph 23 (Description of the essential requirements) 'use runways that cause minimum environmental nuisance' could result in reduced safety margins in case a safer approach is available to another (less environmental friendly) runway in particular in case of low visibility operations. We strongly oppose the proposals in para 2.a. and 2.b. However, we would agree the principle of tackling all sources of noise/pollution at and around an airport, in a balanced way, and not concentrating on aircraft alone.

We strongly oppose the proposals (ref para 3.a.3) to require ATM providers to declare a maximum environmental airspace capacity. Such an ill-conceived proposal risks too complicate ATM for limited environmental benefits. If this would mean that aircraft would need to fly around certain areas it could result in extra emissions and fuel burn. The role of ATM is to ensure safe separation of aircraft while ensuring the efficiency of aircraft operations and limiting environmental impact.

We are extremely concerned about the proposals related to environmental awareness persons active in the aviation system such as flight operations staff, maintenance staff and others (para 5). Detailed requirement for training programmes for such persons would be extremely costly for limited environmental benefits. Also proposals related to continuing environmental capability (para 4f) seem to be excessive and difficult to implement in the real world for limited benefits. We urge EASA not to over-regulate in those matters.

We strongly oppose the proposals related to operational restrictions (limited or prohibition of flights over certain areas or at certain altitudes ref para 6a) and flight preparation and flight operating requirements (ref 4b and 4c) since they could result in devastating impact on the efficiency of airline operations contrary to the EU Single European Sky (SES) initiative objectives. We urge EASA to withdraw those proposals. We are concerned that EASA has noted (in Paragraph 33) that *'ICAO standards are generally understood as setting minimum standards. This deprives the Community from its right to decide on alternative systems'*. This is not our interpretation of the purpose of ICAO standards for environmental protection.

In the case of missing or standards in the process of being constructed within ICAO, Annex 16 volume 1 already provides a method whereby advice in lieu of standards can be published in a shorter time period whilst the full, authorised standards are still in the process of being agreed. This could be used to cover the examples cited in the EASA NPA consultation document. It is noted that although the EU has only "observer" status on ICAO CAEP, some EU Member States enjoy the status of full "Members" and therefore already have the opportunity to direct ICAO in this area.

We maintain our position that the setting of standards and recommended practices is the fundamental function of ICAO and this should be preserved so as to ensure worldwide consistency of aviation rules. If EASA were able to contribute to the harmonised implementation of ICAO SARP's, then we would

strongly support its function in this area, but we could not condone any move to set up specific European standards.

comment 841 comment by: *Direction Générale de l'Aviation Civile*

As stated in the above answers, the French Civil Aviation administration does not believe that extending environmental regulations within the EASA system could achieve significant environmental benefits. Article 6(1) of the Basic Regulation as it is defined at this time seems to be sufficient.

However, notwithstanding this general position, the French Civil Aviation Administration would be willing to pursue discussions on these essential requirements when they are further examined, in particular to address the specific points where conflicting directions coexist.

comment 847 comment by: *CAA-NL*

Position

This is not the time to go into the details of the essential requirements. The essential requirements as envisaged here are too detailed and are aimed at maximum environmental protection, while the other essential requirements, which have already been approved, lay down minimum safety levels. As a result, an imbalance between the interests of the environment and those of safety is to be expected.

Moreover, it is questionable whether sufficient account has been taken of the feasibility and enforceability of the environmental regulations. Another area of attention is the extra administrative regulatory burden that may result, something that could undermine the current policy to reduce the level of regulation.

The Netherlands also wonders, whether this level of regulation is needed (proportionality of the measures and the competitive position of the EU) in order to attain these objectives. Nor is there any guarantee that the measures being proposed could actually be different (more stringent?) to the ICAO requirements that may well be used elsewhere, in spite of the fact that it is stated that there should be consistency with the ICAO requirements.

comment 868 comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*

No. See other comment made and the general comments at the start of this document.

comment 909 comment by: *Dassault Aviation*

As already stated, aircraft are being designed and operated in an international market, and it is vital for the European industry that competitiveness be preserved. A lot of work on harmonization has been going on within the frame of ICAO, with active implication of all stakeholders. There is really no need to deviate significantly from the results of this work, and in the future, changes or additions should be addressed as necessary in the same manner.

Implementation of the results should be homogenized at the European level through the EASA mandate.

comment 962 comment by: AOPA-Sweden

It is impossible to answer this because the items and regulations are so vaguely formed that it is difficult to see the consequences and how it should be implemented. In some areas the proposed rules are well thought of but in other cases the items can be excluded all together. Se further comments above.

comment 982 comment by: ACI EUROPE

Given that ACI EUROPE is of the opinion that a potential extension of EASA rulemaking activities beyond the necessity to ensure the environmental compatibility of products (such as aircraft and engines) shall only be considered on a case by case basis, supported by an in depth analysis of the issue at stake (fully respecting the subsidiarity principle), providing a detailed answer and comments to the proposed essential requirements is considered not to be relevant or appropriate at this time. ACI EUROPE wants to reserve its rights to provide detailed positions on the proposed essential requirements in a future debate, when applicable.

comment 988 comment by: MT-Propeller Entwicklung GmbH - DOA EASA 21J.020

The scope of these new essential requirements will lead to additional restrictions, bureaucratic and financial burden, and could limit, even stops or erase general aviation business. This cannot be acceptable to anyone being involved in the aviation business neither in industry nor at EASA or at NAAs. Several items in the proposed essential requirements that are too strict or even not be fulfilled. For instance 1.g.1 or 4.b.1. or 4.b.3. or 4.c.2.

We can only support the effort to teach the environmental awareness of persons active in the aviation system.

It is supported that environmental awareness of persons active in the aviation system should be trained accordingly as indicate in paragraph 5. Respective knowledge and training is much more worth that any restrictions and limitations. Persons with a sense of responsibility can keep the system successfully running, restrictions and limitations cannot.

The appropriate level of competence in knowledge should be maintained by recurrency courses every 5 years after the initial course. Examinations, tests or checks are not recommended because they do not improve the knowledge and environmental awareness. Person must be willing to act accordingly.

It is recommended to allow and supply self-study courses and materials via internet to keep the cost for all persons involved as low as possible.

comment 1006 comment by: AEA

Considerable efforts have been made in the past to harmonise the various environmental requirements of individual nations into a common standard - that of ICAO standards and recommended practices. It would be a significant, retrograde step to undo all this important work and revert back to the totally unacceptable situation that existed previously. As a general principle, AEA is strongly opposed to '*unilateral, local or regional standards for environmental protection*', which have been demonstrated to impose unnecessary additional costs and restrictions on EU carriers abroad and, in the case of the 'Hush-kit'

Directive, to cause difficult trade and legal problems for the European Union.

In the case of standards that are non-existent or in the process of being constructed within ICAO, Annex 16 volume 1 already provides a method whereby advice in lieu of standards can be published in a shorter time period whilst the full, authorised standards are still in the process of being agreed. This could be used to cover the examples cited in the EASA NPA consultation document. It is noted that although the EU only has 'observer' status at ICAO CAEP, some EU Member States enjoy the status of full 'Members' and therefore already have the opportunity to influence ICAO in this area.

AEA reiterates its position that the setting of standards and recommended practices is the fundamental function of ICAO. This should be preserved so as to ensure worldwide consistency of aviation rules. If EASA were able to contribute to the harmonised implementation of ICAO SARP's, then AEA would strongly support its function in this area, but it could not endorse any move to set up specific European standards.

Regarding the essential requirements (ER) AEA holds that some of the proposals might conflict with safety objectives. For example paragraph 2b *'use of runways that cause minimum environmental nuisance' could result in reduced safety margins* in cases where a safer approach is available to another (less environmentally friendly) runway, especially for low visibility operations. The requirement for the pilot in command to operate the aircraft in accordance with environmental rules and regulations could also be problematic if those rules result in decreased safety levels (the primary role of the pilot in command is to ensure the safety of the aircraft).

AEA challenges the proposals on the environmental awareness of persons active in the aviation system, such as flight operations staff, maintenance staff and others (Para. 5). Detailed requirements for training programmes for such persons would be extremely costly and would provide limited environmental benefits. Also proposals related to continuing environmental capability (Para. 4f) seem to be excessive and difficult to implement in the real world, again with limited benefits. We urge EASA not to over-regulate in those areas.

It strongly opposes the proposals relating to operational restrictions (limitation or prohibition of flights over certain areas or at certain altitudes - ref. Para. 6a) and flight preparation and flight operating requirements (ref. 4b and 4c) since they could have a devastating impact on the efficiency of airline operations and would conflict with the objectives of the EU's Single European Sky (SES) initiative.

It also rejects the proposal (ref. Para. 3.a.3) requiring ATM providers to declare a maximum environmental airspace capacity. Such an ill-conceived proposal risks complicating ATM for limited environmental benefits, since obliging aircraft to fly around certain areas could result in extra emissions and fuel burn. The role of ATM is to ensure the safe separation of aircraft whilst maintaining the efficiency of aircraft operations and limiting environmental impact.

In conclusion the AEA does not consider the essential requirements as proposed to be a good basis for the regulation of aviation environmental protection, because:

- NPA 2008-15 does not provide substantiation for the effectiveness of the

requirements, (no Risk Impact Assessment RIA).

- Many requirements are very vague and do not provide clear information about their impact on the industry.
- It does not ensure that national environmental regulations would be removed.

We therefore urge EASA to withdraw the above proposals.

comment 1020

comment by: *Environmental Court Vänersborg Sweden*

Se allmänna synpunkter ovan.

Translation by Centre de Traduction

See general comments above.

**A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment
- Implementation means**

p. 11

comment 30

comment by: *Royal Aeronautical Society*

The implementation means already established for other domains should be applied also to processes affecting environmental rules developed by EASA.

comment 68

comment by: *FRAPORT AG*

38. The EU commission has already these powers. Certification schemes are already established with EMAS and ISO 14000.

comment 277

comment by: *UK CAA*

Page No: 11

Paragraph No: 39

Comment:

The NPA should describe what other oversight options, if any, were considered.

Justification:

To minimise the regulatory burden, the NPA describes an approach using possible synergies between safety and environmental regulation, where Member States' competent authorities would be responsible for oversight in both areas. Synergies notwithstanding, in view of the tension that sometimes exists between safety and environmental protection, in principle it might not be desirable to combine the roles of safety and environmental oversight within a single organisation. It is not clear what other options, if any, were considered.

comment 399

comment by: *General Aviation Awareness Council, UK*

As we do not agree that there should be EASA environmental requirements, we do not agree that anybody should have powers to verify compliance. Executive powers should not be given to the Commission to adopt the necessary implementing rules.

With regard to paragraphs 43 and 44, if it is already the case that in some

cases including permits to fly there are unpractical provisions in Articles 5 and 20 (presumably because of poor drafting in the past), that must be rectified so that appropriate permits can in fact be granted. Such modification must proceed without the effect of granting powers on environmental issues to EASA that it does not have at present.

We agree with the proposal in paragraph 47, provided it really will have the effect suggested, to leave "some certification tasks for aircraft below 2000 kg" to "be executed by the industry itself, through . . . federations of aircraft owners and trade associations [etc.] , as this is currently done . . . This would likely further reduce the administrative burden for the certification of aircraft."

We do not, however, agree "that accreditation be done by the Agency itself." Sufficient means of accreditation already exist. The system is not broken, and does not need to be fixed - just address the contradictions resulting from poor drafting of previous rule making.

It is our view with regard to aerodromes, that EASA interference in their design etc. would not be "avoiding costly multiple certification processes" (paragraph 48), but would rather itself be a duplication or worse of existing regulation and certification. We do not believe that the multiple oversight by existing national, quasi-governmental, and local authorities would be swept away by a new and simple EASA process, but would instead have an additional layer of bureaucracy imposed, with no benefits whatsoever.

The issues discussed for Air traffic management (ATM), air navigation services (ANS), and air operations, including those of third countries outside the EU, are outside our remit other than comments above under question 3, and we leave further comment on those to the appropriate organisations.

We do not consider it appropriate for EASA to concern itself with environmental knowledge requirements for personnel subject to licensing for safety reasons etc. (paragraphs 51 and 52).

We do not agree with the proposed redrafting of Article 17 for all of the reasons above. If it needs re-drafting to account for existing inconsistencies, it should be done in a manner that excludes these additional powers that EASA seeks, not to support the desire by EASA to add additional layers of bureaucracy to its remit (paragraph 54).

comment 615

comment by: *Walter Gessky*

Item 38:

During the approval process of the amendment to EC 1592/72002 the council disagreed to the proposal of the commission to delegate certification tasks including the issuance of certificates to assessment bodies. Certificates should be issue either by the Agency or by the NAA of the MS. The delegation of certification functions from the Agency to assessment bodies will in any cases not supported by MOT. Certification of ELA product should be delegated to NAA`s of the MS after accreditation done by the Agency.

The Agency can delegate inspection to qualified entities according the basic regulation.

comment 629

comment by: *BALPA*

Para 39 - Synergies between safety and environment, no safety compromise can be acceptable for either environment or economic reasons.

A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment - Implementation means - Product design, manufacture and maintenance p. 11-12

comment 31

comment by: *Royal Aeronautical Society*

The proposals contained in this section all need to be addressed for the sake of clarity and ease of application, and are therefore supported.

comment 85

comment by: *Samuel WENGER*

Please note that environmental aspects of production and maintenance are not aviation specific and are regulated at national level. This is the case e.g. for noise, air and water pollution as well as for worker's protection. This is not a matter to be regulated specifically for aviation industry.

comment 92

comment by: *Lars Hjelmsberg*

page 12 item 43. Carrots are better than regulation and flight safety is above all.

item 47 Question 5 This type of bureaucratic activity shall not be for light aviation. The market will find the best solutions by themselves. People are not uneducated.

comment 126

comment by: *Aero-Club of Switzerland*

47: The question is: Does the Agency believe that the idea of the assessment bodies

a) will be revitalised?

b) change anything which is environmentally important?

c) can be introduced during the next 6 to 10 years?

comment 153

comment by: *UFCNA*

page 11-12- part 41,42,43,47:

Comments: **ICAO standards for light aircraft are widely thought to be totally inadequate for the protection of populations. They have to be strengthened up .**

It is necessary to specify and revise the quantified limits contained in Annex 16 and to review some provisions for the Basic Regulation (art 5 and 20).

Basic Regulation (art. 5) must specify that any product for general aviation must meet the appropriate environmental requirements.

Experimental light aircraft, must also meet environmental requirements. Some of them are highly powered and are not asked to comply with any environmental regulation, at least in France.

Accreditation of assessment bodies shall be done by the Agency itself.

- comment 173 comment by: *KLM Engineering & Maintenance*
A.IV.46. We propose to remove reference to maintenance and repair (ref. our comments to A.IV.28).
- comment 306 comment by: *Luftfahrt-Bundesamt*
 41.
 "...and develop Community requirements for products not covered by this Annex." What is the intention of this sentence? See above: It is expected that EASA is going to develop additional European regulations in order to close gaps and to embed additional categories in its environmental protection requirements. Or what will be the key issues for these regulations?
- comment 307 comment by: *Luftfahrt-Bundesamt*
 43 to 46.
 The LBA has no comments and supports the proposal.
- comment 308 comment by: *Luftfahrt-Bundesamt*
 47.
 see answer to question 5:
 A general approval for assessment bodies to carry out noise tests and issue the related certificates is not acceptable. The accreditation of companies or institutions for the purpose of executing noise measurements on small propeller-driven aircraft or small helicopters may be acceptable, not acceptable is this proposal for jet-aircraft. The acceptance of the noise test reports and of issuing the related approvals must be the task of the certifying authority.
- comment 410 comment by: *Light Aircraft Association*
 Paragraph 43
 If environmental requirements are to be added to certificates then it must only be for aircraft from the year of adding the regulation i.e. if in 2010 then only be applicable to aircraft designed and manufactured from that date onwards. Retrospective requirements will not be practical for historic aircraft.
- Paragraph 44
 This depends on where the Permit to Fly system is heading. We agree with the paragraph in providing alleviations for PtF aircraft, but if the intention is to have only temporary PtFs, then the alleviation may well be academic.
- Paragraph 47
 Certification by the industry should be encouraged. Not attempting to implement this because a "short term solution" is required is an appalling way to make important regulations. Time and full consultation is required to ensure the regulation is fully workable by all those affected and not a quick fix which could ground aircraft and create more work in the future to try and correct bad rules!

comment 481

comment by: *General Aviation Manufacturers Association (GAMA)*

In paragraph 40, the NPA notes that "the EASA system is already well established for product design approvals" with reference to the implementing rules, certification specifications, and EASA certification. Discussion of NAA responsibility for issuance of the noise certificate should be expanded to also include cases where the NAA does not issue a noise certificate and how this information is approved/accepted/recognized by EASA.

Paragraph 41 states that it will be necessary to develop Community requirements for products not covered by ICAO Annex 16. GAMA believes it is inappropriate to state such a conclusion that it is necessary to establish new requirements for a particular category of aircraft without first determining whether there is an unacceptable environmental impact upon the Community from these aircraft that needs to be addressed and that a technically feasible and economically reasonable requirement would provide an actual environmental benefit to the Community.

Paragraph 42 discusses the opportunity to review some provisions of the Basic Regulation such as issuance of noise certificates. GAMA recommends that the noise certificate requirements be clarified such that the actual noise levels for each aircraft as determined as part of certification must be documented in a manner acceptable to the Agency and be available on board each aircraft in operation. For example, a very simple statement within each Agency approved aircraft flight manual that contains all the necessary information would provide a streamlined method of compliance with minimal administrative burden upon the Agency and NAA's.

Paragraph 43 statement that the "certification basis must include the applicable environmental protection requirements" should be clarified by adding "for noise and emissions" at the end of the sentence.

GAMA does not agree with the proposal in Paragraph 46 that the "environmental aspect" of production and maintenance of aircraft should be better reflected in Community regulation. The requirements for a Production Organisation ensure that each aviation product is manufactured properly in conformance with its approved type design and is in condition for safe operation. The requirements of a maintenance organisation or repair station is to ensure the continued airworthiness of an aviation product in accordance with approved manuals, procedures, practices, and design data. It would be inappropriate and in conflict with the safety objectives of a Production or Maintenance organisation to also make decisions or take any actions regarding the "environmental aspect" of an aircraft during its production or maintenance. These issues are considered and addressed during type design certification and post certification activities of the Agency for continued airworthiness of the type certificate.

In Paragraph 47, GAMA supports the work undertaken by the Agency to better adapt the regulatory framework to the needs of general aviation and also supports the concept that some certification tasks for certain very light aircraft could be performed by accredited or appropriately qualified private parties. In order to streamline the process and minimize the administrative burden upon both the Agency and applicant, any environmental requirements which are determined to be necessary and appropriate for these types of aircraft should also be assessed and verified in the same manner as their design.

comment 543 comment by: *Deutscher Aero Club e.V. (DAeC)*
 43.
 In Germany, Ultralight restricted/ type-certifications are only issued when LVL 2004 is fulfilled.

comment 617 comment by: *Walter Gessky*
Item 46:
 The environmental aspect of production should also include the aspect of the impact of production of materials. In a global system, the closure of plants in Europe due to high costs to comply with the environmental protection requirements and transfer to third countries with much lower requirements, due to economic reasons should be controlled. Third country products, parts and appliances should be manufactured under the same environmental protection requirements than in an EU country. Adequate measures to protect European industry should be implemented.

comment 619 comment by: *Walter Gessky*
Item 47:
 For clarification, rulemaking itself should is not a role for the Agency. Agency role is standardization, assistance to COM with regard to rulemaking, and issuance of GM and AMC.
 Rulemaking is the role of the Commission- Comitology or Commoission/ Council and Parliament.

comment 630 comment by: *BALPA*
 Para 47 - Self Certification - The US does have a facility to self certify, but many American aircraft are registered under the "experimental" certification method. For safety reasons, EASA ought to certify all aircraft and not allow industry to self certify. There are already problems and inspection shift of training establishments occurring. How often does EASA propose to inspect the manufacturers of small aircraft to validate their self certification privilege? It will be too late when a certain make of aircraft starts falling out of the skies to then have a full inspection.

comment 727 comment by: *Rolls-Royce plc [DGJ]*
 Regarding paragraph 43, it is not obvious that mechanisms to manage environmental protection and flight safety would *necessarily* be the same; to attempt to capture them all in Article 5 runs a significant risk of accidentally imposing unintended restrictions. We are concerned that amending Article 5 (as, for example, described in paragraph 44) will lead to an unnecessarily complicated regulatory text.
 Would it not be much simpler and more transparent if Article 5 were left alone and Article 6 rewritten in a manner similar to Article 5 but to define all the requirements related to environmental protection in the correct context? Specific requirements covering issues such as those discussed in paragraphs 44 onwards could also be written into Article 6 but framed in a manner appropriate to the subject.
 Part-21A.17 could then legitimately be amended to say that "The certification

basis... shall consist of the applicable airworthiness *and environmental protection* codes...".

Article 20 already makes explicit reference to Article 6 so, by adopting the approach above, there would be no need to amend Article 20.

comment 728

comment by: *Rolls-Royce plc [DGJ]*

Regarding paragraph 41, and to reiterate a point made in answer to Question 4, Rolls-Royce is concerned that the proposed essential requirements do not make it clear that "*the quantified limits contained in Annex 16*" will be transcribed unchanged into Part-21 and would request that a clear statement to this effect be included in the regulation.

comment 729

comment by: *Rolls-Royce plc [DGJ]*

Regarding paragraph 40, Rolls-Royce agrees that Part-21 and both CS-34 and CS-36 already describe what is expected from the applicant to meet the essential requirements. In defining the certification basis for an Engine (for example), the Agency will typically make explicit reference to CS-34.

This being the case, it is not clear why the Certification Specifications for Engines should need to include:

CS-E 1010 Fuel Venting

The design of a turbine Engine must comply or, where the imposed specifications are directed at the aircraft, incorporate provisions enabling the aircraft in which it is intended to be installed to comply with the fuel venting specifications of CS 34.1.

**CS-E 1020 Engine Emissions
(See AMC E 1020)**

It must be demonstrated, by test or analysis or combination thereof, that the Engine type design complies with the emission specifications of CS 34.2 in effect at date of Engine certification. The resulting data must be recorded.

These would appear to be superfluous and should be removed from CS-E. With their removal, CS-E would be restored to being a set of requirements concerned only with aircraft safety, addressing only (the relevant aspects of) Annex I to regulation 216/2008.

comment 869

comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*

Maintenance and repair should not be regulated for environmental reasons.

comment 921

comment by: *Dassault Aviation*

Paragraph 40
current practices

Paragraph 41

a) full transposition of annex 16, as opposed to direct reference, could lead to delay application of the amendments;

b) the risk is to develop specific EU requirements leading to an unharmonized standards in the future. At the beginning it will be for products that are not covered by Annex 16 but later EASA could cover all the products with some local rules as it was in the past before JAR36.

Paragraph 42

Could EASA explain this item and their intentions? Has EASA had intention to oblige to have noise information with a permit to fly?

Paragraph 44

Permits to fly are related to aircraft outside certification conditions, so environment requirements should not be included in the associated flight conditions. DA suggests to amend this paragraph

Paragraph 46

EASA should use existing safety DOA privileges. There is no necessity to create another parallel system.

comment 951

comment by: Dassault Aviation

44

The current provisions related to the issuing of permits to fly do not allow exempting from the environmental protection requirements for products. This is clearly unpractical, as there are many cases where it is necessary and, with appropriate limitations, possible to do so. Therefore, Article 5 should be modified to clarify that environmental requirements are **not** needed for the issuing of permits to fly and ~~provide for an appropriate flexibility when doing so.~~

46

Until now the environmental aspect of production and maintenance (including repair) of aircraft is not regulated at Community level. It was generally considered that the system in place for regulating safety was sufficient to provide compliance with environmental requirements. This is, however, not clearly specified in the obligations of the involved organisations, nor part of their approval process. This should be better reflected in the provisions of Article 5 related to these organisations, **without creating another parallel system.**

comment 1008

comment by: AEA

Paragraphs 46, 51, 52

AEA proposes to remove reference to maintenance, repair and maintenance engineers and to specifically exclude personnel from maintenance organizations (ref. comments to Para 28).

**A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment
- Implementation means - Product design, manufacture and maintenance -
Question 5**

p. 13

comment 14

comment by: KLM

Answer:

Aircraft below 2000kgs should comply with environmental regulations as from the manufacturer with a transition period.

Accreditation of assessment bodies should be done by EASA.

- comment 32 comment by: *Royal Aeronautical Society*
 Q5: Accreditation by EASA of assessment bodies to verify that aircraft below 2000 kg comply with the environmental requirements and to issue approvals is preferable to this work being carried out by EASA directly.
- comment 69 comment by: *FRAPORT AG*
 The assessment should be given during the certification process of air worthiness.
- comment 84 comment by: *Samuel WENGER*
 I agree that assessment bodies can be well qualified to verify environmental characteristics of aircraft. This can be the case for all categories of aircraft, not limited to below 2000 Kg. In general, NAAs are so far dependent on external expertise anyway.
 I also agree that one single instance should eventually confirm the qualification of such assessment bodies.
 A similar question of qualification and conformity/comparability might exist in relation to noise and emissions exposure modelling in the vicinity of airports.
- comment 93 comment by: *Lars Hjelmborg*
 Question 5 This type of bureaucratic activity shall not be for light aviation. The market will find the best solutions by themselves. People are not uneducated.
- comment 109 comment by: *SAS Norway*
 We refer to our general answer under 1, and any accreditation should be done by EASA or under guidelines developed by EASA.
- comment 139 comment by: *EHPU*
 There should be no requirement to comply with environmental requirements on aircraft that are not operated commercially.
 There should be no requirement to comply with environmental requirements on aircraft below 115kg empty mass without pilot and fuel.
 There should be no requirement to comply with environmental requirements on aircraft that are unpowered.
- comment 145 comment by: *British Gliding Association*
 It is currently unclear what constitutes an assessment body under EASA. The BGA believes that certification to environmental requirements should be an industry responsibility within a future ELA environment. Any environmental theoretical knowledge requirements based on existing regulation should sensibly and proportionally be developed for inclusion within certification and licensing requirements overseen by competent authorities and qualified

entities.

The BGA believes very strongly that using safety regulation as vehicle for ensuring other non-safety related regulation is observed is a dangerous precedent to set. Aviation accepts safety regulation where it is proportional and justified. Diluting that principle will result in non-acceptance.

comment 154

comment by: UFCNA

Question 5

UFCNA (federation of resident's associations in France) agree that powers should be given to assessment bodies to verify that aircraft below 2000 kg comply with the environmental requirements and to issue the related approvals. Conversely UFCNA agree that accreditation of such assessment bodies should be done by the Agency.

comment 161

comment by: Aero-Club of Switzerland

No, we do not agree.

Justification: The compliance with environmental aspects can easily be checked and enforced by the institution doing so in technical matters. The idea of the Agency only will add cost and complexity.

If such assessment bodies should exist in the near future, the accreditation has to be done by the Agency only.

Justification: That's what the Agency is here for.

We add another question: Why do you give a high priority to the influences on the environment caused by aircraft below 2000 kg MTOM?

Justification: Is it so important?

comment 209

comment by: BDF - German Airline Association

It is OK if an organization/assessment body oversees the compliance with the environmental requirements. But these have to be accredited and audited regularly by the EASA.

comment 237

comment by: jobeckers UECNA

Ultra light and very light aircraft under 2000 kg total take-off mass shall be certified to EASA standards. Whether the aircraft is certified by EASA, or assessment bodies, this should be decided by EASA. It is important that these type aircraft are designed and built to the EASA standards. The certification of light aircraft shall include adequate procedures with technical checks by certified assessment bodies to maintain the certification standards in the field.

comment 278

comment by: UK CAA

Page No: 13
Paragraph No: Question 5

Comment:

The UK CAA does not consider that there is sufficient evidence to make a judgement on this question.

comment 292 comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

We agree that powers could be given to assessment bodies and in that case, accreditation should be done by the agency. For practical reasons it is foreseeable that the verification of environmental compliance in Switzerland will still be done by the national authority.

comment 298 comment by: *Luftfahrt-Bundesamt*

Question 5:

A general approval for assessment bodies to carry out noise tests and issue the related certificates is not acceptable. The accreditation of companies or institutions for the purpose of executing noise measurements on small propeller-driven aircraft or small helicopters may be acceptable, not acceptable is this proposal for jet-aircraft. The acceptance of the noise test reports and of issuing the related approvals must be the task of the certifying authority and must not be delegated to assessment bodies.

comment 333 comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)*

It is not evident what is actually proposed under the heading "Product design, manufacture and maintenance". Under the present Basic Regulation, EASA is responsible for the airworthiness and environmental type certification of aircraft, while the national aviation authorities are responsible for the airworthiness and environmental certificates of the individual aircraft. We presuppose that the NPA proposal is not intended to change this basic division of responsibilities between the national aviation authorities and EASA.

Further, under the Basic Regulation, it is already possible for the national aviation authorities and EASA, under their respective control and responsibility, to allocate specific certification tasks to qualified entities. It is important that the allocation of tasks is performed by the authority responsible for approvals and oversight, to organisations that are well known to the authority.

comment 343 comment by: *BMVBS, DE*

BMVBS is of the opinion that approvals (as TCDSNs for example) should only be issued by the competent authority (EASA or NAA on behalf of EASA). However, compliance with environmental certification requirements (e.g. noise measurements) might under certain conditions be carried out by accredited entities. In particular noise tests against ICAO Annex 16, Vol. I, Chapter 6, 10 or 11 provisions for aircraft below 2000 kg MTOW might be carried out by certain entities under the supervision of the EASA (or a NAA on behalf of EASA) on a regular basis.

comment 385 comment by: *International Air Transport Association (IATA)*

Question 5: *The Agency is interested to know whether stakeholders agree*

that powers should be given to assessment bodies to verify that aircraft below 2000 kg comply with the environmental requirements and to issue the related approvals. Conversely do stakeholders agree that accreditation of such assessment bodies should be done by the Agency?

- As noted previously, commercial airlines do not normally operate aircraft of this type. IATA therefore has no opinion on this specific question.

comment 411

comment by: *Light Aircraft Association*

Yes, it would seem sensible that if environmental regulations are imposed on such aircraft they ought to be addressed as part of the certification/approval process. Some sort of accreditation would be necessary, and as Qualified Entities for design approvals, etc, would be granted by the Agency, it would seem sensible for the Agency to accredit Qualified Entities for assessing environmental considerations. The impact on the LAA (in conjunction with our plans for ELA) would be the provision of human resources and equipment to measure the environmental impact of aircraft (e.g. noise measuring equipment) and would depend on exactly what the requirements will be. Noise measuring is well within our capability (although not our current resources); emissions measuring is not within our current capability or resource.

Response from the Vintage Aircraft Club

In theory, yes. Before committing the historic aircraft to unworkable regulations the details will need to be seen and approved.

comment 487

comment by: *Fridrich Jan*

In principle I agree with the idea of Assessment bodies accredited by the Agency. However the Agency must prepare detail information and explanation how such system will work including the cost for sports organisations.

comment 520

comment by: *AESA*

We do not consider that this is a main point so is more important to focus on other points that are more relevant to environmental impact.

comment 526

comment by: *Royal Danish Aeroclub*

Answer to Question 5:

We have the opinion that there should be a kind of control of the aircraft below 2.000 kg concerning . That could be part of the working scope of the CAMO's in the future and part of the normal inspection.

And again, regulations should only be for new types and new registrations - not for already registered and approved aircrafts

In all cases, we have the opinion that grandfather rights should be secured in all cases. This mean, if a EU-citizen is able to fly legally in his aircraft, microlight, glider, balloon etc. today - he/her should be able to legally continue to fly in the aircraft in the future in any EU-country.

Regulations should only be valid for new registrations of aircrafts and new registrations of airfields etc.

- comment 544 comment by: *Deutscher Aero Club e.V. (DAeC)*
 The German Aero Club (DAeC) is in charge for certification of Ultralight Aircraft by Ministry of Traffic and Transportation (BMVBS) since 1993.
 Those concepts should be taken in to account.
- comment 553 comment by: *ECA - European Cockpit Association*
 - ECA has no objection to give powers to assessment bodies (for aircraft below 2000 kg), provided that the accreditation process guarantees efficient implementation of the essential requirements and the primacy of safety requirements.
- comment 578 comment by: *The Norwegian Ministry of Transport and Communications*
 The Norwegian Ministry of Transport and Communications has no comments on this issue.
- comment 585 comment by: *ADV*
 As noted previously, the environmental impact of this aircraft types is minor. However, the assessment should be given during the certification process of air worthiness.
- comment 593 comment by: *British Airways*
 As noted previously, British Airways does not operate any aircraft falling into this category, and therefore we have no clear opinion on this specific question. However, we believe that the principle of limited "Design Authority" and related approvals could be extended to environmental requirements, and that accreditation of relevant assessment bodies could be a useful function carried out by EASA.
- comment 606 comment by: *EUROCOPTER*
 We agree that, in the aim to better adapt the regulatory framework to the needs of General Aviation by reducing the administrative burden for the certification of aircraft, and considering the criteria for the accreditation of qualified entities defined in the Annex V of the Basic Regulation, powers should be given to assessment bodies to verify that aircraft below 2000 kg comply with the environmental requirements and to issue the related approvals. We also agree that accreditation of such assessment bodies should be done by the Agency.
- comment 607 comment by: *Walter Gessky*
 Question 5:
 We disagree that power should be given to assessment bodies to verify that aircraft below 2000kg comply with the environmental requirements. The concept of assessment bodies was not agreed by the Council for the amendment of the basic regulation.

The Agency can delegate inspections to the NAA of MS or **qualified entities** or certain kind of certifications could be delegated to DOA`s.

When a full delegation of certification tasks is envisaged, than this can be delegated to well established NAA`s and not to new assessment bodies which have no experience.

comment 645

comment by: *Flughafen Paderborn Lippstadt GmbH*

The environmental impact of aircraft below 2000 kg is marginal. The assessment and verification of compliance with environmental requirements should be given during the certification process of airworthiness.

comment 671

comment by: *NATS*

It is not appropriate for NATS to comment on this question.

comment 710

comment by: *Department for Transport*

There is a link with question (1) to this question. In our response to question (1) we set out that ultra light aircraft should only be subject to common environmental rules at the same time as safety and airworthiness aspects. In which case this question is superfluous.

For safety considerations, we have opposed the approval of assessment bodies for example the approval of ATM equipment or operating procedures where small differences can potentially encroach on safety margins.

For the environment small differences may not be so damaging and for light aircraft currently within scope and that require environmental requirements, we have no objection, in principle, that powers should be given to assessment bodies to verify that aircraft below 2000kg comply with the environmental requirements and to issue related approvals. These bodies, however need to be carefully chosen and adequately controlled.

We support the proposition that accreditation of such bodies should be undertaken by EASA.

It is important however, that any costs associated with these activities are reasonable and proportionate

comment 726

comment by: *Rolls-Royce plc [DGJ]*

Although this subject falls outside Rolls-Royce's direct involvement, we would make the following observation.

There may be any number of ways that products may be verified as compliant with any regulation. The crucial requirement is that such verification is independent, objective and standardised. Provided this could be guaranteed, there would be no reason in principle to preclude the suggested mechanisms.

However, in practise, there will be issues (for example) relating to commercial sensitivity and confidentiality which would have to be addressed. An applicant's proprietary data and intellectual property must be guaranteed to be as safe with a third party as it would be with EASA. Depending on the proposed scope

of the third party's involvement, it is difficult to envisage how such guarantees could be offered.

comment 759 comment by: *Europe Air Sports PM*
EAS supports the idea of Assessment bodies accredited by the Agency.

comment 766 comment by: *Light Aircraft Association of the Czech Republic*
LAA CR in principle supports the idea of Assessment bodies accredited by the Agency, but first it must be known what are the conditions of such solution, including the costs for sport associations. This detail analysis must be presented to the stakeholders by the Agency prior final decision.

comment 767 comment by: *General Aviation Manufacturers Association (GAMA)*
GAMA supports the work undertaken by the Agency to better adapt the regulatory framework to the needs of general aviation and also supports the concept that some certification tasks for certain very light aircraft could be performed by accredited or appropriately qualified assessment bodies. In order to streamline the process and minimize the administrative burden upon both the Agency and applicant, GAMA agrees that any environmental requirements which are determined to be necessary and appropriate for these types of aircraft should also be verified in the same manner as their design.

GAMA agrees that accreditation of such assessment bodies COULD be done by the Agency, but emphasizes that this is only one means and that the Agency should ensure that there is flexibility to recognize other means as it may deem appropriate depending upon the situation and complexity of the requirements.

However, it is important to emphasize that GAMA does NOT agree that light aircraft should be subject to common environmental rules. First, EASA has not provided any information as to the proposed environmental impact caused by these aircraft. Second, are there technically feasible and economically reasonable standards that could be imposed by regulation upon ultralight aircraft which would provide any environmental benefit? Third, the ultralight sector is a small part of the general aviation sector, which itself is a very small part of the overall aviation sector in the EU. Therefore, the cost and administrative burden on the operators and manufacturers of ultralight aircraft as well as on the regulator of including this segment of the aviation community strikes us as potentially yielding microscopically small environmental benefit at a disproportionately large burden that could threaten its very existence. As a matter of proportionality, GAMA does NOT agree that the ultralight sector be subject to any potential environmental rules.

comment 772 comment by: *APAU*
APAU supports the idea of Assessment bodies accredited by the Agency.

comment 785 comment by: *European Sailplane Manufacturers*
On a national scope it was already possible to compare the work of assessment bodies against the same work done by authorities and other official

organisations regarding certification and also noise measurement tasks.

Whereas official organisations and authorities traditional have continuity and dependability as strong points they also have shown to be not very cost efficient.

Especially from the perspective of small companies working in the field of General Aviation the hourly fees and according fixed fees of authorities often exceed the financial viability of typical products.

An actual and also extreme example is the fees and charges system of EASA which would ruin small aviation industry if noise measurements/ certificates could only be exclusively obtained from EASA.

Therefore delegation of verification and approval issuance to assessment bodies is seen by the European sailplane manufacturers as an appropriate solution to this task.

A centralised accreditation of such assessment bodies by EASA would be accepted by the sailplane manufacturers provided that the associated fees and procedures for such accreditation would not lead to high initial costs for these assessment bodies which would then result into high costs for verification / approval issuance.

The aim should be to have enough assessment bodies decentralized over Europe to help the manufacturers (and aircraft modifiers) by offering fast and affordable noise measurements and according approvals.

comment 799

comment by: *ECOGAS*

ECOGAS asks that in the same way that EASA has acknowledged the diverse nature of General Aviation products and types of operation in other aspects of regulation, that it also recognises this diversity when considering environmental regulation. It might be more desirable to exclude the under-2000kg sector entirely from EASA environmental regulation for the time-being, while focus is applied to larger environmental issues.

comment 809

comment by: *Satu Routama*

5. Yes. All aircraft should be under the same environmental regulation.

comment 815

comment by: *IACA International Air Carrier Association*

As noted above, IACA airlines normally do not operate aircraft of this type, and therefore we have no clear opinion on this specific question. However, we believe that the principle of limited "Design Authority" and related approvals could be extended to environmental requirements, and that accreditation of relevant assessment bodies could be a function carried out by EASA. IACA proposes to remove reference to maintenance, repair and maintenance engineers and to specifically exclude personnel from maintenance organizations

comment 828

comment by: *Munich Airport*

As noted previously, the environmental impact of this aircraft types is minor.

However, the assessment should be given during the certification process of air worthiness. This kind of aircraft does operate only in a limited number at Munich Airport.

comment 842 comment by: *Direction Générale de l'Aviation Civile*

The French Civil Aviation administration does not believe that this should be the case. At present, delegations are covered by the DOA system (Design Organisation Agreement). The system of delegation such as it is suggested in the NPA does not guarantee an equality of treatment, and can distort competition.

The French civil aviation administration would prefer for the accreditation of such assessment bodies to be made by the member states.

comment 848 comment by: *CAA-NL*

Position

The Netherlands has no objection in principle to delegating certain accreditation tasks to the industry or affiliated organisations, provided the responsibility of the Government is not at stake and the relevant knowledge of the Government in relation to aviation is not undermined.

comment 871 comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*

There should be a careful cost benefit assessment for the benefits provided by requiring aircraft below 2000kg to comply with environmental requirements. For example, who will fund the accreditation of the assessment bodies? What is the overall environmental impact of these aircraft? ERA strongly objects to any suggestions that operators above 2000kg, who will be captured by any regulations, should be responsible for funding the cost of assessing aircraft below 2000kg.

comment 910 comment by: *Dassault Aviation*

No comment

comment 963 comment by: *AOPA-Sweden*

Basically the answer here is no. First the bureaucracy would be too large and costly. Secondly, EASA is not suited to control local circumstances in aerodromes and such. These are better controlled by local authorities. EASA might however establish a system that gives the Agency the possibility to regulate the local authorities control and how it should be executed.

comment 983 comment by: *ACI EUROPE*

ACI EUROPE is of the opinion that these assessments should be given during the certification process of air worthiness.

comment 989 comment by: *MT-Propeller Entwicklung GmbH - DOA EASA 21J.020*

We agree that powers should be given to assessment bodies to verify that aircraft below 2000 kg comply with the environmental requirements and to issue the related approvals. This should only be applicable to aircrafts others than certified according to FAR/JAR/CS 23.

The accreditation of such assessment bodies should be done by NAAs or DOAs.

comment 1007 comment by: *AEA*

As noted previously, commercial airlines do not normally operate aircraft of this type, and therefore we have no clear opinion on this specific question. However, we believe that the principle of limited "Design Authority" and related approvals could be extended to environmental requirements, and that accreditation of relevant assessment bodies could be a function carried out by EASA.

comment 1021 comment by: *Environmental Court Vänersborg Sweden*

Miljödomstolen anser att det borde finnas en krav- och kontrollfunktion som tillförsäkrar att även småplan uppfyller vissa grundläggande miljökrav om buller och utsläpp till luft. Vid mindre flygplatser kan småplan utgöra en inte obetydlig del av de flygrörelser som förekommer på flygplatsen.

Translation by Centre de Traduction

The Environmental Court considers that there should be a requirement and control function that ensures that even small aircraft satisfy certain fundamental environmental requirements for noise and emissions to air. At smaller airports, small aircraft may constitute a not insignificant element of air traffic movements that take place at the airport.

**A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment
- Implementation means - Aerodromes**

p. 13

comment 33 comment by: *Royal Aeronautical Society*

The proposals contained in this paragraph to simplify the certification and oversight arrangements are supported.

comment 70 comment by: *FRAPORT AG*

This would be no change to the current situation concerning the ICAO standards

comment 94 comment by: *Lars Hjelmberg*

airport issues are local matters and shall not be decided in central Europe for all EU.

comment 162 comment by: *Aero-Club of Switzerland*
 We agree with the ideas of the Agency.
 Justification: That's how the topic has to be dealt with.

comment 279 comment by: *UK CAA*
Page No: 13
Paragraph No: 48
Comment:
 The UK CAA does not agree that EASA should regulate environmental aspects of aerodromes and would like to see a full impact assessment.
Justification:
 It is not clear that there are benefits to the proposal to develop IRs on aerodrome licensing for environment, while leaving some national discretion.

comment 309 comment by: *Luftfahrt-Bundesamt*
 48. see answer to para. 21. to 23.:
 We do not see any necessity that airport operations and airport design with respect to environmental issues should be regulated by EASA. Directive 2002/30/EC on noise-related operating restrictions has already the aim of creating a uniform framework of regulations and procedures for operating restrictions at the airports of Member States. Therefore we do not see any necessity for EASA to cover this task.

comment 545 comment by: *Deutscher Aero Club e.V. (DAeC)*
 Its urgenly requested to define the term aerodrom.
 We do not belive that airfields like take-off fields for ELA aircraft, sailplanes, powered sailplanes, micro lights, hanggliders, paragliders should be subject to community legislation.
 Those airfiels are usually used at weekends only at a low frequency. Threfore the environmental impact is very low. Existing national requirements a sufficient.

comment 602 comment by: *Light Aircraft Association*
 Paragraph 48
 This seems to imply that the environmental regulation of "aerodromes" would only be required where they are currently regulated; presumably only licensed aerodromes. Unlicensed airstrips, aerodromes would therefore be unaffected.

comment 620 comment by: *Walter Gessky*
Item 48:
 The role of the Agency is being limited to standardization; rulemaking is responsibility of the Commission based on comitology and the parliament. See comment to item 47.

comment 631 comment by: BALPA

Paras 48-50 - Member States competent authorities will be responsible for the oversight of the regulations, but they will also be allowed to adapt such rules according to their local needs. This is not regulation, it will allow States sufficient flexibility to remove any hope of achieving a level playing field.

There has been no mention of historic or sporting aircraft. There are plenty of "Warbird" flying displays and "Red Bull" type events that are attractive to the general public. Does EASA consider these events to be "environmentally" sympathetic? How does EASA propose to impose environmental restrictions on air transport activities yet allow these types of events to continue?

comment 672 comment by: NATS

NATS would welcome sight of the impact assessment which demonstrates the benefit of the Agency's involvement in this activity and indicates the likely additional costs to be borne by aerodrome operators.

A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment - Implementation means - Air traffic management (ATM) and air navigation services(ANS)

p. 13

comment 34 comment by: Royal Aeronautical Society

The proposals contained in this paragraph to develop implementing rules for the containment of details and the need to incorporate the principle of subsidiarity are supported.

comment 127 comment by: Aero-Club of Switzerland

Leave this to SESAR, give the necessary support, and help us to take the ANSP out of the national boundaries, much can be won in doing so.

But: In doing so please do not forget General Aviation.

comment 280 comment by: UK CAA

Page No: 13
Paragraph No: 49
Comment:

The UK CAA considers that there is potential for duplication, conflict and contradiction between the current environmental initiatives contained in the SES II proposals, SESAR and the NPA.

It is not clear how such a wide-ranging environmental role for EASA would fit with other aspects of the regulatory framework for aviation and the environment (i.e. SES II, SESAR, ICAO). For example the SES II package will introduce measures that will:

- Promote the environmental sustainability of aviation, seek to improve the environmental performance of ATM, and may set environmental targets.
- Oblige States to ensure that airspace design take account of

environmental constraints.

- Specifically oblige States to ensure that Functional Airspace Blocks reduce the environmental impact of ATM procedures and designs.

Justification:

Proposals for performance based essential requirements for environmental protection, if applied to ATM, could directly impact on the proposed performance framework for SES Package II. In addition to SES II, SESAR also has environmental aspirations. SESAR will be considering a number of specific environmental approaches such as Environmental Management Systems and Collaborative Environmental Management, together with a range of subjects for guidance and best practice. The SESAR ATM Master Plan has its own "Environmental Road map" and a performance framework for environmental sustainability. It is not clear how EASA's proposals would be coordinated with these.

Nor is it clear how the military interface with civil aviation might be managed on environmental issues. Military operations should be excluded from scope of such proposals.

The development of any Implementing Rules affecting ATM/ANS must be closely coordinated with the development of SES implementing rules for performance.

comment 597

comment by: *British Airways*

An area where EASA could help benefit our environmental performance is in promoting the adoption of better airspace management within Europe, with the significant environmental benefits that have already been identified would result. We are, however, mindful of potential overlaps/conflicts with Eurocontrol in the implementation of SESAR and SES policy.

comment 673

comment by: *NATS*

NATS is unclear as to how EASA's involvement would co-exist with other European-level environmental initiatives such as those within SES II and SESAR. SES II already contains explicit environmental requirements and further detail will be developed as part of the Performance Scheme which is expected to be the driver for any environmental target setting.

**A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment
- Implementation means - Air operations**

p. 13

comment 35

comment by: *Royal Aeronautical Society*

The proposal to require a demonstration of compliance with environmental rules together with safety rules for both Community operators and third party operators is supported.

comment 95

comment by: *Lars Hjelmberg*

This is an utopia. Try this and EU will get isolated and EU aviation can only fly inside EU. It is amazing to read this ideas.....

comment 281 comment by: UK CAA

Page No: 13
Paragraph No: 50
Comment:
 This is a politically sensitive area and there is no indication of the benefits to be derived from EASA's proposed course of action.

Justification:
 There is a significant risk that third country operators would challenge EASA's authority to implement environmental rules.

comment 595 comment by: British Airways

Our other main concern is in how EASA would propose to cover non-EU operators, to ensure that market distortion issues are dealt with effectively so as not to penalise EU carriers in favour of their international competitors. We would note the increased risk of international disputes and trade wars if EASA were to try to impose local regulations on all the industry. There is precedent for this in the application of the "Hush-kit" Directive in the late 1990's, which resulted in financial threats directed at British Airways and other EU carriers and the application of the ICAO Article 84 process, which finally resolved the issue. This would not be a situation we would like to see repeated and could be severely damaging to both British Airways and other EU carriers in the present financial climate.

comment 872 comment by: EUROPEAN REGIONS AIRLINE ASSOCIATION

If EU carriers are going to have to comply with additional environmental rules then there should be a level playing field and it should be applicable to third countries.

comment 922 comment by: Dassault Aviation

The restrictions applied to non european operators in Europe will simplify the competitor aspects of operations if the same reciprocity is applied to european operators in non european countries. An example is the application of the altitude of cutback power setting or NADP in Europe and in USA regarding the TOW : an European operator will have to apply a cutback altitude at 800ft in EU and US whilst the same type of aircraft will be permit to apply the same cutback power setting at 400ft with an american operator in USA. The altitude of 800ft is regardless safety reasons for TOW less than 35000kg. At the end the noise benefits will be following USA rules.

A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment - Implementation means - Environmental awareness of persons active in the aviation system	p. 14
--	-------

comment 36 comment by: Royal Aeronautical Society

It is agreed that to establish a dedicated licensing system for environmental knowledge is disproportionate. Such knowledge should not form part of the

licensing requirements for aviation professionals who are currently required to hold licences authorising them to work as pilots, air traffic controllers and maintenance engineers, but should be delivered by the same means as proposed in paragraph 52 for non-licensed personnel whose work may have an environmental impact upon civil aviation.

comment 71 comment by: FRAPORT AG
 Leading to the growth of overhaed and additional costs.

comment 128 comment by: Aero-Club of Switzerland
 51: That is a good idea. Start with the air traffic controllers and with PANS.
 Justification: Not only pilots have to be aware of the necessity of protection of the environment, also controllers.

comment 174 comment by: KLM Engineering & Maintenance
A.IV.51.We propose to remove reference to maintenance engineers (ref. our comments to A.IV. 28).

comment 175 comment by: KLM Engineering & Maintenance
A.IV.52. We propose to specifically exclude personnel from maintenance organizations (ref. our comments to A.IV. 28).

comment 282 comment by: UK CAA
Page No: 14
Paragraph No: 51/52
Comment:
 The UK CAA does not believe that the proposal for environmental knowledge to become standard part of licensing for pilots, ATCOs and maintenance engineers is necessary.
Justification:
 The requirements for gaining a pilot, ATCO or maintenance engineer licence are contained in Part FCL, Part 66 etc. Paragraph 28 of this NPA proposes an extension of the requirements that have to be met to hold a licence to include environmental awareness. This is unnecessary and possibly unworkable. Part FCL already mandates some of the requirements for pilots such as noise abatement procedures and environmental effects are included in the theoretical knowledge syllabus for a professional licence, in subject topics O71 (Operational Procedures) and 040 (Human Performance). Training and testing also includes adherence to the flight manual, published procedures and compliance with ATC instructions.

comment 310 comment by: Luftfahrt-Bundesamt
 51. to 52.
 The LBA has no comments and supports the proposal.
 53. see answer to para. 29. to 30.

Directive 2002/30/EC on noise-related operating restrictions has already the aim of creating a uniform framework of regulations and procedures for operating restrictions at the airports of Member States. And with respect to small airfields local environmental problems can not be regulated by uniform requirements. This is a typical task of the subsidiary principle. We do not see any necessity for EASA to cover this task.

54.

Article 17 reflects the functions of the Agency in a more general way. We do not see the focus prior on safety aspects. However, there should not be a competition between safety and environmental protection. Although environmental protection constitutes a major target of the Community's objectives, safety is the first priority! Therefore, the LBA does not support this proposal.

comment 479 ❖ comment by: *General Aviation Manufacturers Association (GAMA)*

With regard to the "environmental awareness" of personnel, again it seems to be a solution in search of a problem. It is not clear from the discussion in paragraph 28 what would be the objective of including "environmental knowledge requirements" in the "theoretical training" of certain personnel such as pilots, air traffic controllers and maintenance engineers.

Individuals engaged in aviation activities that require a license are certified by virtue of their license to have shown themselves able to operate competently and safely within their specified profession.

These individuals should be able to demonstrate only that they are capable of flying an aircraft, for example, safely and in accord with all the applicable rules. To layer on a vague educational requirement of "environmental knowledge" would make an already rigorous licensing process based on safety principles even more complex and costly, for the equally vague objective of an ill-defined level of environmental awareness.

comment 610 comment by: *Light Aircraft Association*

Paragraph 52.

This would have a direct impact on LAA once we take on ELA approval work: it suggests that all organisations in the chain provide their employees (who are involved in the process) with appropriate ongoing training. The question emerges: what is appropriate ongoing training? This would presumably need to be negotiated with EASA and included in our organisation exposition. It doesn't seem entirely unreasonable, depending on the extent of training required.

comment 633 comment by: *BALPA*

Para 51 - Environmental knowledge - this is an example of empire building and absolving responsibility. We believe that most people employed in the aviation business are acutely aware of the environmental impact of flying.

comment 674 comment by: *NATS*

Paragraph 51: For pragmatic reasons knowledge requirements for environmental purposes should instead take the form of additional knowledge

requirements for personnel subject to licensing for safety reasons. NATS accepts that environmental awareness is necessary but not that it should be subject to a licensing requirement.

Paragraph 52: NATS does not support the proposal to put formal regulatory requirements for environmental knowledge on non-operational staff. This would add additional employment costs which NATS does not consider have been adequately justified.

comment 870 comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*
Maintenance and repair should not be regulated for environmental reasons.

comment 873 comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*
Paragraph 50 and 51
If EU carriers are going to have to comply with additional environmental rules then there should be a level playing field and it should be applicable to third countries.

comment 1009 comment by: *AEA*
Paragraphs 46, 51, 52
AEA proposes to remove reference to maintenance, repair and maintenance engineers and to specifically exclude personnel from maintenance organizations (ref. comments to Para 28).

**A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment
- Implementation means - Operating restrictions**

p. 14

comment 37 comment by: *Royal Aeronautical Society*
The proposal to employ the implementing process already developed for safety rules to implement rules for environmental protection is supported. However, if the intention is that the latter will be incorporated within the associated safety rules, care must be taken to ensure that there will be no uncertainty as where priority should be allocated in the case that one potentially conflicts with the other. (For example, planning the amount of fuel required for a flight plus reserves, and the right of a pilot-in-command to uplift extra fuel if in his consideration this would be prudent for safety reasons.)

comment 283 comment by: *UK CAA*
Page No: 14
Paragraph No: 53
Comment:
The UK CAA can see no advantages in environmental operating restrictions being subject to common rules under the EASA system.

The use of the term 'operating restrictions' is confusing. Directive 2002/30/EC defines an operating restriction as noise related action that limits or reduces access of civil subsonic aeroplanes to an airport. Therefore, the term operating

restrictions is inappropriate for actions to reduce the formation of cirrus clouds or to avoid tranquil areas.

comment 675

comment by: NATS

NATS would welcome sight of the impact assessment which demonstrates the benefits of making operating restrictions subject to common rules under the EASA system.

comment 901

comment by: Cathay Pacific Airways

Paragraph 53

The obvious intent here is to allow States the ability to apply their own environmental policy/restrictions over and above those implemented by EASA. This will almost certainly result in a proliferation of environmental standards within the EU, the very thing this proposal claims to try and avoid.

**A. EXPLANATORY NOTE - IV. Content of the Notice of Proposed Amendment
- Implementation means - Functions of the Agency**

p. 14

comment 38

comment by: Royal Aeronautical Society

Notwithstanding the implication within paragraph 54 that environmental protection should be placed on a par with safety, it is essential that any redrafting of Article 17 should make clear the primacy of safety where this and environmental considerations conflict.

comment 96

comment by: Lars Hjelmberg

Where do we find the necessary environmental knowledge inside administrations and among politicians? The idea is good but shall of course cover everyone not just pilots, every human person. Specifically we are requesting this knowledge among regulators and politicians. Today anyone can become a regulator and a politician without any education -- just political merits. It should not be so in the future - competence shall govern.

comment 284

comment by: UK CAA

**Page No: 14
Paragraph No: 54
Comment:**

The UK CAA does not think the Agency can or indeed should make such unequivocal statements about the intentions of the legislator. We think it more appropriate to assume that the legislation accurately reflects the legislator's intentions.

Justification:

Regulation 1592/2002 was very specific in setting out at Article 2.1 that the principal objective of the Regulation was "to establish and maintain a high uniform level of civil aviation safety in Europe". Article 2.2 then lists a number of "additional objectives" including environmental protection". Moreover, the name given to the organisation clearly denotes the primacy of the safety

objective.

comment 554 comment by: *ECA - European Cockpit Association*

- As mentioned already in the General Comments on this NPA, ECA strongly opposes to change the relationship of the principal objective (Safety) of the Basic Regulation and any of the additional objectives (including environmental protection). The supremacy of safety needs to be maintained.

comment 584 comment by: *British Airways*

It is stated in paragraph 54 that the "*intention of the legislator was that the Agency should also ensure the proper functioning and development of all areas of the aviation system that are within its competence and not just the safety aspects.*" If this were correct, we would question the necessity to amend the Basic Regulation to extend EASA's scope of competence as noted, as it would appear the Basic Regulation already covers this? As a general principle British Airways is not in favour of greater regulation, but would wholeheartedly welcome better regulation.

The airline industry is currently going through its toughest trading period ever, with significant financial pressures already contributing to the failure of 35 carriers this year alone. As a result, with high fuel prices contributing upward of 30% to our operating costs, there is already significant pressure to reduce fuel use with associated environmental benefits. We believe that individual airlines have more in-depth experience of optimising operational fuel efficiency than EASA, and in this respect should retain the authority of managing our own economic and environmental performance.

comment 634 comment by: *BALPA*

Para 54 - Functions of the Agency - EASA's primary remit is for safety; to introduce the highly political environmental debate is counter productive. Is EASA a Safety Agency or an EU Regulation and Implementation Directorate?

comment 676 comment by: *NATS*

NATS was not involved in the creation of the Agency and would therefore welcome sight of the evidence for these assertions. NATS had presumed from the name of the Agency that its primary role was about safety. NATS must again stress that safety is paramount.

comment 725 comment by: *Rolls-Royce plc [DGJ]*

Whilst any organisation may have multiple responsibilities, paragraph 12 of the preamble to Regulation 216/2008 calls for the creation of a "European Aviation Safety Agency", not a "European Aviation Safety and Environmental Protection Agency". The name reflects the need for clear and unambiguous safety regulation and safety regulators.

comment 768 comment by: *General Aviation Manufacturers Association (GAMA)*

GAMA disagrees with paragraph 54 which implies that the intention of the

legislator was that the Agency should equally ensure the proper functioning and development in both the safety and environmental areas of the aviation system. The European legislator clearly, and properly, stated in the Basic Regulation that the purpose of establishing a EASA is aviation safety and that environmental protection is an additional value/benefit to the Community as a "second class objective" and not a principal function of the Agency.

comment 789 comment by: *Aero-Club of Switzerland*

We do not agree with 54!

Justification: Article 17 of the Basic Regulation fits perfectly well. Thy primary "raison d'être" of the Agency must be aviation safety.

comment 996 comment by: *MT-Propeller Entwicklung GmbH - DOA EASA 21J.020*

It is absolutely correct that safety must be considered as first class objective and environmental protection should be considered as second class objective. Of course, environmental protection is very important for all of us but it must not be treated as safety. Proper functioning and development of civil aviation safety has and must have always priority. Environmental protection cannot be put on the same level as safety.

The re-draft of Article 17 is therefore not supported because it involves a certain risk that overkeen environmental protection could limit too much, even stops or erase general aviation busine

B. DRAFT ESSENTIAL REQUIREMENTS

p. 15

comment 146 comment by: *British Gliding Association*

This is a highly complex task that requires significant professional input and consultation on many of the elements described. Limiting operations sounds like a positive approach. But to do so without having implemented a revised ICAO approach to environmental issues will internationally disadvantage EU industry.

comment 400 comment by: *General Aviation Awareness Council, UK*

As stated above, if any Essential Requirements at all emerge after this consultation, in spite of our opposition, the present proposals need such drastic revision, to accord with our views, that it is beyond our scope and resources to attempt the task.

comment 511 comment by: *IFATCA*

Attachment [#10](#)

comment 512 comment by: *IFATCA*
Attachment [#11](#)

comment 513 comment by: *IFATCA*
Attachment [#12](#)

comment 514 comment by: *IFATCA*
Attachment [#13](#)

comment 516 comment by: *AIRBUS*
Safety and environment are put on an equal footing without notion of hierarchy between the two families of requirements. Safety requirements nevertheless result from a longstanding rulemaking activity, driven by several decades of technological development and lessons learned from in-service experience. The maturity is such that it prevents inconsistencies between the requirements applicable to the different stakeholders. The sudden introduction of a brand new and complete set of regulations, having the same weight and put at the same level of importance as safety regulations, could impair this balance and introduce a risk as regards to the identification of the respective responsibilities of the regulated persons or entities. The introduction of a set of regulation with such an importance should be based on a gradual approach, the next step being envisaged only when the previous one has been properly implemented, is sufficiently mature and once it has been shown that it does not impair safety.

comment 547 comment by: *Deutscher Aero Club e.V. (DAeC)*
No additional regulations for Ultralight Aircraft are needed in Germany
In Germany ultralight aircraft are covered by airworthiness requirements LTF-UL 2003 (mostly according CS-VLA) and environmental requirements LVL 2004.

B. DRAFT ESSENTIAL REQUIREMENTS - I. Description of the essential requirements

p. 15

comment 816 comment by: *IACA International Air Carrier Association*
IACA wishes to submit following comments to EASA's document.
- § 5. IACA regrets the obscure wording in this paragraph. The word "inappropriate" used by EASA should be defined.
- § 16. EASA is correct in mentioning that these aspects are addressed in Annex 16 of the Chicago Convention. This is exactly the reason why we

consider that EASA should not interfere in this matter, in order to avoid double rule-making.

- § 22. IACA considers that EASA should not interfere in the environmental aspect of aerodrome design. This is linked to the balance approach, in which land-use planning (a local consideration) plays a key role.

- § 37. IACA regrets that EASA's text makes no reference whatsoever to the safety responsibility of the pilot in command. We fail to understand how Europe's safety agency can omit such fundamental role for the pilot in a phrase that starts with the words "first of all"

B. DRAFT ESSENTIAL REQUIREMENTS - I. Description of the essential requirements - Introduction

p. 15

comment 15

comment by: KLM

The location of an aerodrome is an economical and political issue. It should be determined that residential free areas are created around an airport but that is outside the scope of EASA.

Road and rail infrastructure and traffic have to be controlled by the local government and these are also applicable to handling equipment and vehicles at the airport and should therefore not be regulated by EASA.

These ER's do not give reason to EASA to get into this kind of regulations.

comment 17

comment by: KLM

4

- Inappropriate **product** design, production or maintenance. This is the responsibility of the manufacturer and the buyer/user.

Regulations will not stimulate innovations but restrictions only and will require adjustment to the technological possibilities when available. Creating undesired paperwork only.

5

- Inappropriate design, including arrival and departure procedures, or operation of an **aerodrome**. Local requirements that are complicated already cannot be put down in regulations or should be mentioned in particular but again creates undesired paperwork without any benefit. Improvements are prevented and regulations will only be restrictive.

- Inappropriate **air traffic management** or air navigation service. Since most ANSP's have a monopoly, it might be worthwhile to enforce flexibility and environmental awareness. CDA and CDFA can bring improvement in noise and emissions and could be promoted.

- Inappropriate use of aircraft. Seems unnecessary to be mentioned as commercial aviation operates according ICAO Annex 6 and additional regulation from EASA will be restrictive only.

- Lack of proper **awareness** of environmental impact of those acting in the system. Operational fuel savings is an economical issue and already a long standing practice by operators and will remain to be. Other parties such as ATC could be made aware but should be in another way than regulations.

comment 39

comment by: Royal Aeronautical Society

A general comment regarding all proposed essential requirements is that each

must be capable of implementation through the development of implementing rules that can themselves deliver measurable outputs. This may not be difficult to achieve where the proposed essential requirements have been based upon ICAO SARPs, but where they have not, EASA should - before it submits its Opinion to the Commission for an extension of its remit to include the development and enforcement of rules relating to protection of the environment - satisfy itself that pragmatic implementing rules can in fact be developed. If rules can be written only in a form that is open to different interpretations, then the essential requirement covering that rule (or rules) should not appear in the submission.

In respect of rules that will have quantifiable outputs, due regard must be given to proven scientific knowledge where this is relevant. The principles of subsidiarity and proportionality must be applied where appropriate.

comment 72 comment by: FRAPORT AG

I 2. Agreed

comment 73 comment by: FRAPORT AG

I 5 ii. A clarification of this term is necessary. First of all the design of an aerodrome follows safety requirements! Which in some cases is inappropriate for the environment by nature.

comment 110 comment by: SAS Norway

Comments to II Essential Requirements

1.b CO₂ is not specifically mentioned. As this emission is currently thought to have the highest effect on the global climate this seems like an omission.

1.g This requirement does not take into account substances where substitutes does not perform adequately or are not available and where safety or function might direct use anyway. A current example is the essential use exemption that enables the installation of halon fire retardants on aircraft.

4 a-f This section nearly reflects wording already in place in EU OPS-1 except for the word "environment". We suggest that EU OPS-1 is amended appropriately in accordance with the intent shown. Such an amendment would be beneficial to any airline planning to become ISO 14001 certified, and would eliminate our current need to do such a revision to our operational documentation in order to gain certification.

See also our reply for Question 4.

5 a-c Same comment as for 4 a-f.

comment 113 comment by: university of leiden - netherlands

(revisions and/or additions in italics; footnote only to provide you with additional information and/or argument about proposed revision but not to appear as footnotes in any revised NPA. However, footnote text that significantly clarifies main text might be 'upgraded' to main text.)

B.I.1. ... through climate change. *They can result from exposure to noise or emission levels under regular system performance as well as from exposure to levels following (partial) system break down.***[1]** A high level of protection... etc.

[1] More consistency and precision is needed in the use of 'environment' as distinct from 'human health'. Wherever uncertainty might arise whether human health is, or is not, implied by the word 'environment' only, I suggest to use both of them explicitly in order to prevent the misperception that human health would not be a major regulatory objective.

comment 114

comment by: *university of leiden - netherlands*

(revisions and/or additions in italics; footnote only to provide you with additional information and/or argument about proposed revision but not to appear as footnotes in any revised NPA. However, footnote text that significantly clarifies main text might be 'upgraded' to main text.)

B.I.2. ... to an acceptable level.**[1]** In that context...
...not justified by their objective. *In developing proportionate measures, in principle, health and safety risks from alternative (or no-) action should be given due consideration.***[2]**

[1] Nowhere in the NPA 2008-15 there is explicit attention paid to how the reduction of human health effects in the emissions-context might relate to the reduction of human health effects in the safety-context (the latter being EASA's prime scope). I suggest inclusion of the following risk-analytical reasoning: 1. Any risk level deemed acceptable essentially and always results from trade-offs, whether self-evident or complex. 2. The determination and management of safety risks is the first and most important action regarding the reduction of potentially negative human health effects from aviation. 3. Acceptable safety risk levels are explicit conditions to the further reduction of negative health and environmental effects of aviation (sound, emission).

[2] This relates to the preceding topic of "undue restrictions". When noise driven measures cause (or contribute to) economic restrictions in airport use, there will be health risks from lost employment opportunities.

comment 115

comment by: *university of leiden - netherlands*

[Note: text of the paragraph below to replace the existing B.I.3]

B.I.3. *The essential requirements take into account that regular exposure to aviation (noise and emissions) may cause negative impacts on residential health, notably night time sleep disturbance (by extra awakening) and day time stress (noise annoyance).***[1]** *The effectiveness of measures to reduce night time noise disturbance is largely dependent upon the effectiveness of day time measures, and vice versa.***[2]** *In general, auditory and non-auditory determinants of residential health are equally important, and large individual differences in human sensitivity exist in either case.***[3]** *This means that integrated action is needed based upon proper community communication.***[4]** *The balanced approach should also cover emissions reduction, especially as (inter)national air quality concerns tend to conflict with local noise climate improvements.*

[1] Available evidence basically shows that these two still are the most significant health effects (WHO-definition of health) at year averaged exposure levels up to 70 dB(A) Ldn (or equivalent Lden measures).

[2] Results of the recent EU-commissioned field study HYENA show conditional increases in risk of hypertension due to night time exposure to aircraft noise, that is, only among residents who are highly annoyed by their day time noise exposure. Day time exposure itself to noise from aircraft was unrelated to hypertension. (See: W. Babisch et al. (2008) *Hypertension and exposure to noise near airports - Results of the HYENA-study*, Paper presented at ICBEN, Foxwoods, CT.) These findings also emphasize the importance of perception (non auditory factors) and the necessity of integrated action in addressing day and night time exposure.

[3] The role of non-auditory factors is likely to become even more pronounced as -for the foreseeable future- technical reductions of sound production by individual engine and air frame are nearing its asymptote.

[4] Many non auditory factors (e.g., more negative health effects if exposure is unpredictable, if exposure indices unfitting perception are used, if there is no say in choice of mitigation opportunities, if one is fearful of crash by aircraft, etc.) have a clear social component. (See, e.g.: E. Maris. et al. (2007) Evaluating noise in social context: the effect of procedural unfairness on noise annoyance judgments, *Journal of the Acoustical Society of America*, **122** (6) 3484-3494). Therefore, 'half of the job' in mitigating negative health effects of aircraft noise exposure will be done by joint commitment of airport and its environment to information exchange and mutual accommodation.

comment

116

comment by: *university of leiden - netherlands*

[Note: text of the paragraph below to be inserted between the revised B.I.3 (above) and the existing B.I.4 (the latter to be renumbered to B.I.5, and so on.)]

B.I.4. Airports, generally serving regional and national needs, are essential elements of infrastructure and, thereby, part of the total transportation system. This distinction has important consequences for environmental protection. In general, decisions about the total volume of transportation movements and its preferred characteristics (e.g., its acceptable total environmental load) shall remain the typical responsibility of the higher level authorities. Typically, they are assigned also the power to set universal health protection standards. However, in line with the subsidiarity principle, other relevant decision making on health and environment should be accorded preferably to lower levels. The distinction between lower and higher level authority is especially important to the management of aircraft noise because of the strong influence of local conditions[1] on health effects from noise exposure.

[1] As already emphasized (see 2nd note to B.I.3): with physical (auditory) and social (non-auditory) conditions being connected indissolubly.

comment

724

comment by: *Rolls-Royce plc [DGJ]*

Paragraph 5 describes how "inappropriate" design, management and use of aircraft can lead to "adverse" environmental effect. Particularly in the Large

Transport category of aircraft, industry has been very active in developing designs and management techniques to reduce environmental impact and these have been reflected in the ever more stringent requirements developed in conjunction with ICAO. The technologies employed in current designs are state-of-the-art. It is misleading to suggest that all Industry has somehow been negligent. It would be more appropriate to say that "...reductions in environmental impact may be achieved through: i) careful product design, production or maintenance; ii) appropriate design..." etc.

comment 769

comment by: *General Aviation Manufacturers Association (GAMA)*

GAMA supports the purpose of this NPA as stated in paragraph 1 "to define broader, performance based, essential requirements for environmental protection." Unfortunately, the Description of the essential requirements completely contradicts the previously stated purpose of defining performance based requirements and instead delves into specific mitigating measures such as design parameters for environmental protection.

For example, Paragraph 2 states that "it must be made clear that certification processes are not mitigating measures; they are verification that a mitigating measure is being implemented." In fact, the current certification processes verify compliance with the environmental protection performance standards of a maximum allowable noise level and emissions level. Appropriately, there are no requirements that certain mitigating measures or design features are being implemented as this in itself would not achieve any environmental benefit. Additional comments are provided below in response to the proposed essential requirements for design which improperly focus on specific mitigation design parameters as opposed to environmental performance standards that would provide environmental benefit to the Community.

In Paragraph 5, it is incorrect for EASA to state that adverse environmental effects of aviation are caused by inappropriate aircraft product design, production or maintenance. These are tightly regulated activities for which there are strict standards and regulatory oversight to ensure compliance. Aircraft design, production and maintenance are accomplished appropriately and in compliance with all safety standards and environmental protection requirements. Aviation products reflect the state-of-the-art in technology and capability at the time they are designed and certificated to achieve the highest level of safety, performance, and environmental protection possible. All aircraft design, production, and maintenance meet the applicable environmental protection requirements and therefore are not inappropriate. Nevertheless, aircraft manufacturers continuously invest in research & development of new technologies and capabilities to continuously improve the safety, performance, and environmental compatibility of new aircraft.

comment 874

comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION**Paragraph 1*

The word "normal" should be inserted in the first sentence so that it reads "1. *Aviation environmental protection essential requirements are the conditions to be fulfilled by a product, an infrastructure, a person or an organisation acting in the aviation system to mitigate all significant harmful effects from their 'NORMAL' operations or activities to the environment or human health and welfare.*"

Paragraph 3

ERA would like to clarify how you define "human sensitivity"? It is subjective and open to interpretation.

Paragraph 5

ERA would like to clarify how you define "inappropriate"? It is subjective and open to interpretation.

comment 923

comment by: *Dassault Aviation***Paragraph 4**

The aviation market is relevant of international and not only domestic rules. Consequently the ICAO rules must be the fundamental rules that are debated in international arena. Manufacturers need to have clear objectives on the future standards to balance aircraft design management and not to a local rule. Every solution has to answer at the both objectives: missions and markets.

comment 952

comment by: *Dassault Aviation***4**

The essential requirements have been drafted with the view to allow alternative implementation means, which could vary depending on the type of approach and the part of the aviation system that is addressed. ~~It would be possible, therefore, to develop implementing rules based on material developed by ICAO or to build on other forms of regulation.~~

B. DRAFT ESSENTIAL REQUIREMENTS - I. Description of the essential requirements - Product design, manufacture and maintenance

p. 16-17

comment 97

comment by: *Lars Hjelmberg*

page 16 item 6.

It is dangerous to affect the design of aircraft by environmental rules and thus the flight safety. It is up to the designer and purchaser of goods to agree to have a competitive aircraft. Regulations (locally) on ground shall dictate design not EASA regulations.

item 10 Noise is about drag -and drag is about economy of flight With current high fuel costs -- this solves itself between aircraft producers and should not be in EASA rules.

item 12. Regulating through EASA will only give short sighted solutions. All these things are better handled in a market environment. The discussion in item 12 could be valid today but may not be valid tomorrow. There is nothing exact through in these things over time.

comment 130

comment by: *Aero-Club of Switzerland*

We do not understand why the Agency includes these design and production details in this NPA!

Justification: All the Agency writes in this section is very clear to everyone having to do with aircraft design and aircraft production. Nothing is new, everything has been clear for a long time now.

comment 176 comment by: *KLM Engineering & Maintenance*
 General: We propose to remove any reference to maintenance personnel or organizations.

comment 229 comment by: *jobeckers UECNA*
EASA presents an extensive list of technical solutions to reduce noise emissions. Aircraft operators tend to avoid noise reducing upgrades for the aircraft, even the cost are not an issue. Although winglets are offered as upgrade kits at moderate cost, they are not installed. The same applies to other inexpensive kits to reduce noise emissions, which are not implemented too.
We refer to the DLR study "Quiet Traffic". We see a definite requirement that EASA forces the integration of noise reducing add-ons and/or modification of aircraft as adequate measures to reduce noise emissions.

comment 358 comment by: *AIRBUS*
§§ 6, 7, 8, 9, 10, 12, 13, 14, 15
 The requirements are too prescriptive and interfere heavily with the role of the designer for noise and emissions reduction. In addition, the list is not exhaustive and includes technologies that could become obsolete in the future if replaced by better technical solutions. ER should remain essential and not apply to detailed design features. They should only provide the general environmental performance objective. The list provided could even be counterproductive as regards to the general environmental objective since the optimization is defined at the overall aircraft level. Detailed requirements are unacceptable from the manufacturers point of view and not in line with current practices in all other domains (including safety).

comment 501 comment by: *Air Transport Association of America, Inc. (ATA)*
 In its explanation of the Essential Requirements 1.a-f, EASA simply recounts the basic technological considerations of aircraft and engine design, notes that these matters are currently addressed by ICAO Annex 16 standards, and concludes that the proposals are therefore in line with Annex 16. ATA disagrees with that conclusion. These draft requirements seek to require manufacturers to maximize all noise and emissions reductions, thus setting up potential regulatory requirements that would be impossible to meet under the laws of physics. In fact, manufacturers now devote enormous resources to developing technologies that minimize the inherent tradeoffs between competing environmental parameters (e.g., fuel burn and NOx emissions), and that meet the demands of their airline customers for more fuel efficient aircraft that also offer continuing improvement on noise and emissions. In the ICAO standard setting process, State and stakeholder experts devote enormous resources to the assessment of technological progress and tradeoffs, developing standards that capture the environmental benefits of continuing technological progress in the most cost-effective way. The ICAO standard setting process, with attendant goal-setting to guide further technological development, is a successful example of international harmonization in an extremely complex area, and EASA should withdraw consideration of any requirements that relate to aircraft or engine design. Rather, EASA should continue its current, productive role of participating in the work of ICAO CAEP.

comment 665

comment by: *General Aviation Manufacturers Association (GAMA)*

This section (paragraphs 6-9) recognizes and captures reasonably well a description of the current design practices and technologies. It is important to recognize that all engine designs involve tradeoffs. The marketplace has for decades provided strong incentives to engine manufacturers to improve efficiency. Every new generation of turbine engine has incorporated significant efficiency improvements which provide a corresponding significant improvement in environmental protection. For general aviation jet engines, for example, there has been an improvement of roughly 1% per year in specific fuel consumption for the last four decades and noise reductions that provide industry leading margins from the current ICAO standards.

However, it would be inappropriate for EASA to prescribe how engines should be designed by requiring specific mitigating measures that have been used historically, whether to meet environmental objectives or performance objectives.

In paragraph 10, the text states that noise from the airframe cannot be ignored. In fact, current environmental protection requirements are performance based noise standards that take into account all noise generated by an aircraft in operation irrespective of whether the source is the engine or airframe.

In paragraph 12, the text describes the various factors that go into the design of an engine, including those that mitigate emissions of various kinds. The text goes on to state that the essential requirements addresses the trade-off between designing for low fuel consumption and for low emissions. However, this language ignores that engines are also designed for safety, durability, cost, and performance and that these are also significant considerations in all design trade-off considerations, many of which are much higher in importance.

Paragraph 14, this text again focuses exclusively on the environmental factors related to design of an airframe. Aircraft are designed for a specific mission, with a focus on safety first, durability, speed, range, payload, cost, and overall performance, with secondary consideration of optimized aerodynamic performance for the environment.

comment 680

comment by: *General Aviation Manufacturers Association (GAMA)*

Paragraph 16 states that all of the environmental protection aspects discussed in the NPA with respect to aviation product design, manufacture and maintenance are currently directly or indirectly addressed in ICAO Annex 16 and the EASA certification procedures and airworthiness standards. EASA concludes therefore, that these essential requirements are in line with Annex 16.

However, and more importantly, if the current regulatory requirements for the environmental protection of aircraft design address the aspects discussed, what additional measures and requirements should be established through new essential requirements for environmental protection? In those cases where the current implementing regulations and certification requirements are sufficient to cover the environmental aspects discussed in this NPA, they should not be repeated in the newly proposed essential requirements for environmental protection.

The proposed essential requirements in the area of aviation product design, production and maintenance only seem to go beyond the currently established performance standards for noise and emissions by prescribing specific mitigation measures with potentially significant burden/impact that do not in itself provide any environmental benefit to the Community.

In addition, most of these environmental protection aspects discussed in the NPA are already implemented in the EU through Directive 2002/30/EC which establishes ICAO's Balanced Approach for the establishment of rules and procedures with regard to the introduction of noise related operating restrictions at Community airports.

Paragraphs 6-21 provide discussion on the essential requirements 1.a - 1.k for product design, manufacture and maintenance. GAMA provides specific comments in response to these paragraphs in the respective section below.

comment 723

comment by: *Rolls-Royce plc [DGJ]*

It is possible that the descriptions of mechanisms and technologies in the following text have been simplified to make a point. For example, in paragraph 8, it is strongly implied that BPR must be maximised to minimise environmental impact. This is too simplistic. Very high BPRs will almost certainly lead to increased powerplant weight and increased aircraft drag, both of which would require increased thrust to maintain aircraft performance; increased thrust would normally result in an increase in both emissions (including CO₂ through increased fuel burn) and noise.

However, whilst we would challenge the strict meaning of some of the statements made, we are sympathetic to the underlying message behind paragraphs 6 to 21. Rolls-Royce experts would be happy to assist the Agency in drafting suitable and appropriate texts.

comment 875

comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*

Paragraph 11

ERA would like to clarify by whom have these 'species' been determined to have had a detrimental effect? Is the evidence conclusive? For example, the scientific effects of NO_x emissions on climate change are unscientifically proven.

Paragraph 12

Aircraft engines are already designed in the way described in this paragraph. The discussion is therefore irrelevant.

Paragraph 13

ERA supports this statement. It is a function already undertaken by aircraft manufacturers.

Paragraph 14

ERA believes that this would happen anyway? Why does this need to be legislated?

Paragraph 15

ERA believes that this would happen anyway? What about the role of ICAO?

Paragraph 16

ERA believes that if the requirements are already in line with ICAO why are they required?

Paragraph 18

All aircraft are ultimately harmful to the environment in some way. The use of the term 'no aircraft' is unquantifiable. What about military aircraft and their impact on the environment? What is meant by "particularly harmful"? All human activities have an effect on the environment in one way or other.

Paragraph 19

ERA believes that every component on an aircraft has to be safety compliant. ERA requests examples of components that have no safety function and are purely for environmental protection rather than safety or operational improvement are provided.

comment 902

comment by: *Cathay Pacific Airways*

Paragraph B16

This paragraph mentions a recent study which is obviously being used as a basis for the assumptions in the NPA, but there is no clarity or transparency as to which study and by whom.

comment 924

comment by: *Dassault Aviation*

SUPPRESS SECTIONS 7 to 21

Paragraph 6 -21

A certification rule must not contain technical solutions which are anyway evolutionary and of engineers business. Any suggestion or forbidding of technological points has to be removed from the "Essential Requirements" Suggestion : to define in this paper the Technology Readiness Level (TRL) with the common definitions at the ICAO WG1 and WG3. Suppress the whole sections 7 to 21.

Paragraph 6

manufacturers balance the several criteria of design that could be summarized by : aircraft performance, environmental requirements, operating costs and business case. In this design the environmental purposes will not optimised against performance, missions and market costs and consequently will be depending on technology available defined by TRL 9.

Paragraph 7

the art of engine manufacturers : these criteria are well known but there is other criteria depending on objectives and technologies available.

Paragraph 8

Maximize BPR to reduce jet noise has been known for a long time but there is a maximum effect and some limitations. Performance of a business aircraft are driven by several criteria like the climb ratio. The BPR will be also limited due to the installation effects in particular with rear fuselage engines.

Paragraph 9

how to shield the noise from an aircraft independently of engines?

Paragraph 10

If the aerodynamic features are well designed to have good performance and particularly at high speed, the residual airframe noise due to the separated flow will be also reduced

Paragraph 12

remarks that the CO2 emissions and consequently the specific consumption is not only due to combustor chamber but also to the aeroplane performance : the range of the aircraft and consequently its mission is one driver of the balancing aircraft design.

Paragraph 13

Design trade offs must always take into account all requirements. This includes noise and emissions. It is to be noted that new technology engines, taking the requirements into account from the beginning, show better performance in both aspects.

Paragraph 14

this is the art of airframe manufacturers to design a product for an economic market and missions.

Paragraph 15

The transition phases when landing gears and high lift devices are deployed or retracted will be always noisiest even with a good design

Paragraph 17

Application of environmental procedures at the high level required here would mean a lot of work and high costs, without commensurate benefits for the community. Again, considering the consequences of non compliances associated with aviation, environmental protection should not follow rules and procedures that are copied from safety regulations without adaptations.

Paragraph 18

The limits and the interpretation of this item are very large : all vehicules that use energy could be considered harmful to the environment. Some check mechanism must be put in place to prevent abuse in this interpretation.

Paragraph 19

The noise certification is provided for normal conditions : when some items could be inoperative, the conditions are not normal. The certification is not defined when anti ice is active for exemple.

Paragraph 21

from the manufacturer's point of view, as environmental compatibility would be one in many design objectives, the existing Design Organization Approval is probably sufficient.

B. DRAFT ESSENTIAL REQUIREMENTS - I. Description of the essential requirements - Aerodromes

p. 18

comment 74

comment by: FRAPORT AG

23. The operator of an aerodrome has a responsibility to use the aerodrome in the most environmentally friendly and cost effective way.

24. Fraport fully agrees

27. Already the case.

28. Already the case.

comment 131

comment by: *Aero-Club of Switzerland*

24: Do you know take-offs where low power is used? And what will be your definition of a low drag landing configuration? We do not agree with the ideas of the Agency.

Justification: It is the pilot in command who decides what is right, not a clergy in an office far away from the nearest airport.

30: Do you think of car racing on airports as a use of the airport to be prohibited? Or do you want to prohibit operation of civil aircraft on military air bases? Please be more precise.

Justification: Precision will reduce the number of discussions.

comment 230

comment by: *jobeckers UECNA*

We agree with EASA's position regarding the requirements for airports / airfields. The reality is that airport operators frequently violate these rules. In order to ensure the compliance with the EASA rules for aerodromes, strict control of these rules will be necessary. This control shall be carried out by EASA.

Airport operators frequently refuse to publish data on the airport operations. They violate EU Directives (e.g. 2003/4/EU). Reports of violations of EU Directives to EASA (or authorized national organization) shall be made easy (e.g. via E-Mail, Internet portal). Details of the violations should be documented in the minutes of the aircraft noise commissions, and be made public.

comment 359

comment by: *AIRBUS*

§ 24

The paragraph 24 reads:

"It is thus important and desirable to design the related procedures as quiet and clean as possible, as envisaged in paragraph 2.c. This includes new navigation techniques allowing more flexibility in trajectories. This paragraph also provides the basis for any measures to minimize the environmental impact based on the environmental characteristics of the aircraft and/or the distance to the aerodrome."

The underlined part of the paragraph more relates to Air Traffic Management than to Aerodromes.

comment 360

comment by: *AIRBUS*

§ 29

The paragraph 29 reads:

"Paragraph 2.i is a general requirement aimed to create legal basis for measures preventing unacceptable environmental effects of the aerodrome operation. As an example the location of an area for pre-flight engine run-ups

close to residential housing, or the use of operational procedures involving fuel or oil discharges that would contaminate the environment could be prevented invoking this paragraph."

The first sentence raise the question of what is considered as acceptable and unacceptable from the environmental protection point of view.

Operational procedures involving fuel discharge can be used by the crews when they meet technical difficulties requiring an immediate landing and when the aircraft weight is higher than the maximum certified landing weight. The pilot may select to jettison fuel, depending on his estimation of the situation. The environmental protection requirement is not in line with the safety objective in that case.

comment 508

comment by: *Air Transport Association of America, Inc. (ATA)*

With respect to design and operational measures taken to address noise, EASA's proposed requirements would again undermine a role accorded to State and local authorities under the ICAO Balanced Approach to Noise, as applied in EU States under Directive 2002/30/EC. Those parties are best able to consider measures appropriate for local conditions.

Design and operational measures taken to address emissions from aircraft and other airport sources are governed by national laws, which are applied as appropriate for air quality conditions in areas that include airports. These localized air quality assessments do not lend themselves to generalized measures of the type that EASA contemplates. Also, ICAO is in the process of developing guidance for use by local authorities in assessing air quality in the vicinity of airports. ICAO's Airport Air Quality Guidance Manual, Doc. 9889 (2007) contains detailed guidance on emission inventories for aircraft and airport sources, and future chapters will address dispersion modeling and mitigation measures.

comment 581

comment by: *ADV*

We are concerned that some of the proposals might conflict with safety objectives. For example paragraph 23 (Description of the essential requirements) 'use runways that cause minimum environmental nuisance' could result in reduced safety margins in case a safer approach is available to another (less environmental friendly) runway in particular in case of low visibility operations.

comment 635

comment by: *BALPA*

Para 24 - We are already seeing CDA approaches and problems associated with different aircraft manufacturers affecting aircraft approach performance. For example, Airbus uses a mini-ground speed principle to conserve energy to allow for an enhanced degree of safety during wind sheer events. Boeing does not. It is possible to fly a constant speed on the approach in a Boeing, whereas the automatics in an Airbus could have a variable up to 15+ knot buffer. This fact alone makes planning an approach unpredictable. To state for example that all aircraft must fly at 160 knots on the approach, reduces the Airbus safety margin in certain configurations. This concept is unenforceable.

Airbus has certified the A318/9 to perform 6 degree approaches into London City. How long before this is mandated into all major cities? Stipulating criteria in regulation is inappropriate and is a case where environment is overriding safety.

comment 722

comment by: *Rolls-Royce plc [DGJ]*

Regarding paragraph 23, the Agency should be advised that engine operating instructions often specify minimum (warm-up) times to be spent at idle prior to take-off in order to assure stable engine aerodynamic and thermal behaviour. Whilst such instructions are not Mandatory, they are strongly recommended, but they could very easily be construed as being contrary to the above objective.

Additionally, strict adherence to this requirement might promote the use of procedures such as tailwind take-offs where these would avoid built-up areas. These are examples where the safety and environmental requirements can easily conflict with each other.

comment 876

comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION**Paragraph 22*

ERA believes that EASA should not be involved in aerodrome design.

Paragraph 24

ERA has concerns with the statement "*Most of the environmental problems around aerodromes are caused by the aircraft movements in and out of aerodromes, as in these phases of flight aircraft operate at low level and often in conditions and configurations that result in increased noise and emissions.*" This statement is not true. Local emissions are also caused by the operation of ground vehicles and machinery that have adverse effects on the environment. For example, at LHR there is evidence to show that the majority of local air problems as caused by access roads, closely located major roads and ground vehicles at the airport.

Paragraph 30

ERA believes that "intended use" is impossible to define over the long term. For example, Farnborough Airport in the UK was designed to be military operated and is now used as a civilian airport and, in addition, used for air shows. This proposal may work for new airports but not for existing airports and/or change of use airports.

comment 926

comment by: *Dassault Aviation***Paragraph 24**

care should be taken to ensure that new procedures do not prevent current generation aircraft from operating.

B. DRAFT ESSENTIAL REQUIREMENTS - I. Description of the essential requirements - Air traffic management and air navigation services

p. 19

comment 75

comment by: *FRAPORT AG*

32. This is not proven. Fraport is really interested about the conclusions found.

34. Several EU projects are working on this. Eurocontrol is involved.

comment 98

comment by: *Lars Hjelmberg*

item 18

What is harmful? Everything is harmful even breathing of human beings. Everything must be put into a relation. With this current writing the entire jet powered fleet today should be put out of operation because they are not profitable to operate in the weather systems < FL 250 where their emissions, exhaust etc goes down with the weather to the earth. Instead they are all operating economically on high flight levels FL 330 and above where the effect of emissions, carbon dioxide, particles are extremely dangerous.

comment 231

comment by: *jobeckers UECNA*

Attachment [#14](#)

ATM/ANS operations plays a major role in the protection of the environment. To date ATM/ANS do not consider environmental issues as important factors. Their focus is to provide the safe air traffic, and to reduce cost of aircraft operations. Furthermore there is a lack of standards for environmentally friendly ATM/ANS, and the control of the compliance with environmentally friendly procedures. (See "Merkblatt BV008" der Bundesvereinigung gegen Fluglärm, attached, or Internet: <http://www.fluglaerm.de/Merkblaetter/BVF17-MB-BV008vs-Flugrouten-402.pdf>)

comment 361

comment by: *AIRBUS*

§ 31

The paragraph 31 reads:

"The Air traffic management/air navigation services (ATM/ANS) functions and services have an important role in reducing noise and emissions as much as possible. This is why this aspect is mentioned in paragraph 3.a."

It is not clear whether or not coordination with SESAR objectives has been ensured by the legislator before publication of the NPA. Since the SESAR Definition Phase includes a chapter on the environmental protection, clarification should be provided on the adequacy of the proposed essential requirements in the field of ATM and ANS with SESAR, in particular as regards to their respective implementation timeframes.

comment 515

comment by: *Air Transport Association of America, Inc. (ATA)*

Immediate completion of the Single European Sky and SESAR would provide a tremendous improvement in airline fuel efficiency. This would enable air traffic service providers to minimize unnecessary fuel burn and attendant emissions with direct routing. ATA encourages EASA to engage with EUROCONTROL to facilitate completion of this project. Any issues relating to avionics and equipage of aircraft could involve significant costs for airlines, and would need to be discussed in detail with stakeholders.

comment 637 comment by: *BALPA*

Para 33 - Noise sensitive areas in the database. Will current FMGCs have the capacity to have this data included or will essential information be filtered out to ensure its inclusion. If FMGCs were unable to be programmed with the Bosnian no fly zone, how would they have this additional information included? As long as the FMGC will not override pilot demands that may be necessary for non-environmental reasons perhaps the "display" of information could be valuable but we dispute whether additional information can be safely displayed without the display becoming cluttered.

comment 790 comment by: *Aero-Club of Switzerland*

32: On the one hand, we agree, on the other, we shall not be able to change, for instance, an ILS approach in increasing the angle to 5 degrees for environmental reasons.

Justification: ICAO is very clear about this. Do not reinvent the wheel!

The location of any aviation infrastructure has obvious effects on noise perceived as well as the amount of emissions created by aviation! CDA are one important aspect, sure. So give all the necessary support to SESAR!

Justification: This is the best way to have CDA, shorter routes, flexible use of airspace. However, the great risk is that General Aviation will be neglected, and this is what we have to fight against.

comment 925 comment by: *Dassault Aviation*

DA is sustaining these items

B. DRAFT ESSENTIAL REQUIREMENTS - I. Description of the essential requirements - Air operations

p. 19-20

comment 99 comment by: *Lars Hjelmberg*

page 19 item 37.
First of all the priority one of the pilot of command is to operate the aircraft safely and flight safety is the priority. It can never be first priority to operate in accordance with environmental rules and regulations. I have never thought that such basis rules could ever be presented by an aviation authority. **I am shocked!**

comment 232 comment by: *jobeckers UECNA*

We refer to the aforementioned comment 231 with its attachment.

comment 640 comment by: *BALPA*

Para 37 - "The responsibility and authority of the pilot in command for operating the aircraft in accordance with the environmental rules and regulations is established in ..." - so if the pilot in command makes a safety decision which requires him to overfly a noise sensitive area or does not fly his

aircraft in an environmentally sensitive way could he be sued or lose his job? There are significant safety and legal implications. Any onus must be placed on the AOC holder to provide Ops Manuals that comply with Regulation and not on the Commander.

Para 38 - Does EASA propose to close an airfield because the weather is bad - fog in Amsterdam? Similarly, if the higher flight levels are deemed unsuitable for environmental reasons, are those flight levels going to be unavailable and result in lower cruising levels with higher fuel consumption and noise implications?

Para 39 - If the headwinds are too great are we to cancel the flight for environmental reasons? Certain airlines could have a field day with this regulation considering that operational excuses are not covered by insurance.

Para 44 - Pilot's decisions can affect the environment, but do we need to be tested on the knowledge? This seems to be EASA abdicating responsibility for operations.

comment 720

comment by: *Rolls-Royce plc [DGJ]*

Regarding paragraph 37, is the carriage of dangerous goods not already regulated elsewhere? Does this subject really fall into the scope of this initiative?

comment 877

comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*

Paragraph 37

Not at the detriment of safety. Safety is paramount.

Paragraph 38

There is likely to be a trade off with altering routes/flight levels for environmental reasons. For example, more damage may be caused to the environment by longer routings. This trade off must be assessed and quantified.

Paragraph 44

ERA believes that this should not be to the detriment of safety.

comment 903

comment by: *Cathay Pacific Airways*

Paragraph B38

This suggestion could conceivably be used to limit operations on certain days when the atmospheric conditions are outside nominated guidelines. A considerable amount of science would be necessary here and certainly far more than exists today. Therefore, at this time, this provision is inappropriate.

comment 927

comment by: *Dassault Aviation*

Paragraph 36 and 37

DA is sustaining these items

Paragraph 38

EU-OPS and ICAO-PANOPS recommend not to execute a NAP if the meteorological parameters are not good. With this § EASA will recommend to

close airports if the NAP are impossible for an aircraft. This could have economic consequences that need to be evaluated.

Paragraph 39 -42

DA is sustaining these items

comment 953

comment by: *Dassault Aviation*

38

In addition, it is clear that no flight should be commenced if it could not be executed in accordance with environmental requirements or if the necessary means to that end would not be available (4.b.1), nor if the aircraft would not be equipped and certified properly (4.b.2). ~~Although it is rare today, it is not impossible that in future certain aerodromes or flight levels could only be used if the meteorological conditions are favourable. If so the meteorological conditions must be verified (4.b.3).~~

B. DRAFT ESSENTIAL REQUIREMENTS - I. Description of the essential requirements - Environmental awareness of persons active in the aviation system p. 20-21

comment 233

comment by: *jobeckers UECNA*

Standards and regulations for environmental protection in air operations have developed and changed at an increased pace. This requires initial and continued training for personnel responsible to manage ATM/ANS. This training shall include licensed personnel as well.

comment 507

comment by: *Air Transport Association of America, Inc. (ATA)*

Airlines and other aviation stakeholders already have Environmental Management Systems (EMS), some certified under ISO 14001, which are designed to integrate environmental considerations into every aspect of the organization, and to provide each employee with an understanding of environmental considerations pertinent to his/her role.

comment 770

comment by: *General Aviation Manufacturers Association (GAMA)*

With regard to the training of personnel, again it seems to be a solution in search of a problem. It is not clear from the discussion in paragraph 28 or 43-46 what would be the objective of including "environmental knowledge requirements" in the "theoretical training" of certain personnel such as pilots, air traffic controllers and maintenance engineers. Individuals engaged in aviation activities that require a license are certified by virtue of their license to have shown themselves able to operate competently and safely within their specified profession. These individuals should be able to demonstrate only that they are capable of flying an aircraft, for example, safely and in accord with all the applicable rules, including environmental ones. To layer on a vague educational requirement of "environmental knowledge" would make an already rigorous licensing process based on safety principles even more complex and costly, for the equally vague objective of an ill-defined level of environmental awareness.

B. DRAFT ESSENTIAL REQUIREMENTS - I. Description of the essential requirements - Operating restrictions

p. 21

comment 18 comment by: *KLM*
 47
 Putting any restriction onto operations will result in unfavourable situations, either economical or safety wise. Neither will do good to the environment and will not be good for aviation in total. EASA shall not get involved in restrictions to air operations for environmental reasons.

comment 132 comment by: *Aero-Club of Switzerland*
 Questions to 38: Of what kind of aerodromes are you writing? Who shall be entitled to decide? Such an idea must be completely unacceptable for Commercial Air Transport! Of what a timescale are you thinking?
 Justification: How will the Agency assure world wide operations and adherence to timetables if somewhere someone can decide that certain aerodromes may not be used for meteorological reasons?
 Our opinion to 47: The proposed approach to the problem cannot be accepted by us in the form stipulated here.
 Justification: If you want to establish curfews for aircraft to have silent nights as in the middle ages, then please establish curfews for trains, trams, busses, cars, coaches, for short: Ban all the innovations made during the last 200 years. Why do you propose to restrict banner towing over cities where even the noisiest aircraft are nearly not heard?

comment 147 comment by: *British Gliding Association*
 The BGA is surprised by the choice of the word 'restrict' rather than modify. In many cases modifying operations is appropriate. When that is not possible, surely the final option is to restrict an operation.

comment 234 comment by: *jobeckers UECNA*
 People in the vicinity of airports and airfields are exposed to continuously increasing noise emissions. The "deficit of protection against emissions from air traffic" increases at the same rate.
 Improvements in the protection of people, who are exposed to these emissions, can be achieved by the reduction of the noise emissions from aircraft, changes of the flight path, and noise-related operating restrictions. Whereas the technologies to reduce noise and other emissions from the aircraft and standardized take-off and landing profiles do not have room for significant improvements, the noise-related operating restrictions become the only effective measure to protect people from excessive noise emissions.
Areas for limitation of aircraft operations:

- Technological limitations
 - Aircraft marginally meets the emission standards
 - Aircraft which does not meet Chapter 4 Regulations

- Restrictions for "Non-FMR-Aircraft"
 - Operating restrictions depending on noise levels
 - After exceeding the measured maximum permissible noise level at one of the airport noise level measuring stations
 - After exceeding the maximum permissible noise level of the aircraft certification
 - Operating restrictions of the operating hours
 - Night flights
 - Other operating hours
 - Week ends, Sundays, holidays
 - Restricted hours for the use of a particular runway
 - Temporary restricted flight paths
 - Traffic restrictions
 - Restrictions to the number of aircraft movements
 - Based on limits for emitted noise levels
 - Restrictions for the airport capacity
 - Restriction to "one-way" use of the runway
 - Restrictions to the flight path
 - Temporary restrictions to certain routes / flight paths to protect densely populated areas, which are heavily exposed to aircraft noise, and noise sensitive buildings (hospitals, schools, retirement homes, kindergardens).
 - Restricted areas with minimum flight levels
 - Minimum flight levels
 - for approach and departure flight paths
 - Operational restrictions at aerodromes
 - Restrictions to use reverse thrust during roll-out
 - Restrictions to maximum take-off weight

comment 362

comment by: AIRBUS

§ 47

The legislator should clarify if the proposed Essential Requirements are supposed to complement, or supersede, the Directive 2002/30/EC of the European Parliament and of the Council of March 26, 2002 on the establishment of rules and procedures with regard to the introduction of noise-related operating restrictions at Community airports.

comment 439

comment by: Light Aircraft Association

Paragraph 47 is particularly onerous in stating "The phase out of old-technology aircraft" and "being restricted during the weekend" as this is when the sport of General Aviation more frequently occurs and all historic aircraft could be grounded! Suggesting that flights could be prohibited over quiet areas and particularly rural tranquil areas may be possible with commercial air transport but is totally impractical for General Aviation!

The statement that setting of the rules may make certain activities not possible

is unacceptable; all existing activities must be allowed to continue although new technology may set the parameters for new aircraft designs to accomplish these activities in a more environmentally acceptable manner.

Such statements as new products should be as quiet as possible are unacceptable as without some defined limits costs for the absolute would be prohibitively high (re Essential requirements paragraph 1).

Response from the Vintage Aircraft Club

Operating Restrictions

Paragraph 47

Although this section appears to be related to CAT, the threat to GA is contained within it by the mention of banner towing. Suggesting "The phase out of old technology aircraft" without considering the implications of this statement to the historic aviation community could lead to the grounding of some fine aircraft! Historic aircraft cover everything from ex airliners to ultra-lights. The effect of inappropriate regulations can be seen in the loss of passenger use of the DC3 airliners across Europe!! We definitely object to the suggestion of restricting GA aircraft during weekends, above certain cities, with "noisy (not defined)" aircraft and below certain altitudes. Many historic aircraft are operated by private individuals who can only fly them at weekends!

The potential of "prohibiting flights over quiet areas, established in particular to safeguard tranquil rural areas" may be OK in less crowded countries but in the overpopulated parts of the UK and with the huge areas of controlled airspace to avoid, GA would not have any space left! Although a nice ideal, this would prove impractical in the UK.

comment 648

comment by: *BALPA*

Para 47 - Operating restrictions. It was found that post 9/11, the average temperature in the US rose by 1% attributable to the lack of contrails reflecting solar radiation; global dimming = global cooling. Does EASA propose to ban supersonic flight, over land and over seas which would need to include the Space Shuttle and the EU Space programme? We think this would be unenforceable.

comment 928

comment by: *Dassault Aviation*

"increasing minimum flight altitudes" - DA is sustaining these items

"exclude flight levels if cirrus are in formation" - operational implications would have to be investigated, along with their economic impact: to be suppressed

"phase out of old technology" - to increase the production of new aircraft : why not

"prohibition of supersonic flight" - DA could not sustain this item before closing it under ICAO umbrella. to be suppressed

"night curfews" - The international flights lead to difficulties of slots in an other point of the world.

In certain cases the best method to prevent, limit or reduce the adverse environmental impact is to restrict certain operations. These restrictions can

take several forms, which are addressed in the subsections of paragraph 6. Paragraph 6.a.1 could for instance be the basis for increasing minimum flight altitudes (higher than those needed for safety) to reduce fly-over noise ~~or for excluding of flight levels where meteorological conditions would lead to formation of cirrus if these are shown to be problematic.~~ Another example of an operating restriction is the prohibition of flights over quiet areas, established in particular to safeguard tranquil rural areas. (6.a.2). The phase-out of old technology aircraft, ~~the prohibition of supersonic flight~~ or the establishment of night curfews are examples of the operating restrictions addressed in paragraphs 6.a.3, 6.a.4 and 6.a.5 respectively. Often combinations of several of these aspects will be used, for instance to reduce the annoyance from banner towing. ~~One could consider this could be restricted during the weekend, above certain cities, with noisy aircraft and below certain altitudes.~~

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements

p. 22

comment 100 comment by: *Lars Hjelmsberg*
 page 22 item 1.b
 Why are lead, particles and carbondioxide missing ????

comment 235 comment by: *jobeckers UECNA*

The following sections are mainly covered by the previous sections.

Further viewpoints:

Extending the rules of the German LLV (Landeplatz-Lärmschutz-Verordnung) to all aerodromes. This implies that an unrestricted use of the aerodrome is only applicable to aircraft, which meets the enhanced noise emission standards. Other aircraft are restricted to leave the airport area, and return no earlier than 60 minutes after the departure. This excludes go-arounds for pilot training.

All propeller powered aircraft shall meet at least he German standards for enhanced noise emission (aircraft under 9000 kg maximum take-off mass). Older aircraft shall be upgraded to this standard.

Technical inspections shall include the check of the silencers (mufflers) for compliance with the certification.

Leaded fuel for piston engines harms the environment. Leaded fuel is outlawed for ground transportation. Consequently it must be taken off the market for aircraft as well.

Automobiles which are powered by older piston engines can use the unleaded fuel. Add-ons protect the engine from defects. New or re-built engines have components, which allow the use of unleaded fuel without add-ons.

Air traffic is largely exempted from taxes. Handling charges on the ground (airport fees) usually do not cover the actual cost. Airport services for the air traffic are often cross-subsidized from other businesses, which are resident at the airport property. The airport infrastructure often is subsidized from taxpayers' money.

Air traffic and ground transportation within the EU shall be equally treated regarding subsidies and the obligation to pay taxes. Cost for the

management of air traffic, ground services shall be fully paid by aircraft operators and other players in this industry. The same applies to the payment of fuel taxes and value added tax on the ticket price for all flights within the EU.

These taxes and cost-covering service fees for ground handling will increase the prices for air transportation. This will also balance the competitive advantages of air traffic with ground transportation. This policy should at least reduce the growth rates for emissions by air traffic.

The application of new technologies (satellite navigation, etc.) for the optimization of the flight routes (Single European Sky), avoidance of waiting patterns near airports in low altitudes, optimization of noise abatement during approaches and departures to and from airports shall be pushed forward. Some of these technologies and operational procedures allow

- steeper descents to the airport,
- less noise emissions during take-off and climb near airports,
- elimination of waiting patterns by enroute adjustments to the cruise speed and altitude for straight-in landings, or flight time efficient circling approaches,
- assignment of approach and departure paths over less sensitive areas,
- less fuel consumption, cost saving, and less emissions.

Operating restrictions on the ground, including

- no use of the on-board APU while the aircraft is parked at the gates,
- no waiting lines on the taxiways (= minimization of the engine running time on the ground.,

Noise from helicopters is excessive in some areas. This noise is caused by

- the design of helicopter rotors and engine noise,
- flight altitude and speed

The first efficient measure to reduce the noise exposure is to increase the minimum altitudes for cruise, and to optimize the flight profile for take-off and landing.

Minimum cruise altitudes are required for VFR and IFR flight conditions (day and night). The minimum altitude shall be at least 1000 ft., and 2000 ft. above ground for cross country flights.

Certification standards to be developed for the reduction of noise emissions by rotors and engines. Older helicopters should be required to upgrade the rotors to with less noise emissions.

Airports to be forced to minimize the land use for its expansions. The location of additional runways should be optimized for a minimum of impact to urban areas in the airport vicinity. Noise abatement to be given the priority over economic considerations, like the capacity of the runway in relation to other runways on the aerodrome.

Aerodromes shall be planned and operated that the runway, overrun areas and taxiways are in safe distance to adjoining properties in the vicinity of the aerodrome. This ensures safe altitudes for flights over property and public roads, which are located outside the aerodrome. In case existing aerodromes do not comply with this requirement, the runway, overrun areas shall be moved to ensure safe flight altitudes over adjoining properties in the aerodrome vicinity.

comment 386 comment by: *International Air Transport Association (IATA)*

With regard to the draft Essential Requirements set out in Part B-II of the consultation document, IATA considers that many of the provisions and definitions described are particularly vague and ambiguous and require much more specificity and guidance.

comment 712 comment by: *Walter Gessky*

As notified in the answer to question 4, Austrian Ministry of Transport, Innovation and Technology have some concerns with regard to the proposed concept. Since there are indications that the essential requirements includes sometimes a duplication to the text in the existing essential requirements, we will propose to adopt the existing Annexes 1, 3 and 4 adequately and include in the essential requirements for environmental protection only task not covered in other requirements.

With regard to ATM/ANS and aerodromes we do not support Essential requirements before the amendment to the basic regulation is acceptable for the council.

Detailed comments see the attachment to this comment.

comment 817 comment by: *IACA International Air Carrier Association*

IACA wishes to submit following comments to EASA's document.

§ 1.a. IACA deplores that EASA states that "Aviation products must be designed to be as quiet as possible". We hold the opinion that this sentence should read "as quiet as practically possible"

§ 1.b. IACA notes that CO2 is not mentioned in the text and concludes that CO2 indeed should be mitigated through the EU ETS only. EASA should indeed have no competence on all CO2-related matters.

§ 1.g. Many aircraft and aviation products have design features or details that are harmful to the environment, such as cadmium plated parts, etc. These materials are used for safety reasons and are indispensable as long there are no approved alternatives available. It is therefore proposed to rephrase 1.g. as follows: "Unless essential for safety, an aviation product must not have design features or details that are particularly harmful to the environment". In addition, it would be appropriate to provide examples or guidance on what kind of design features or details that are essential for safety are deemed 'to be harmful to the environment', and to what extent measures should be taken to mitigate emissions as much as possible.

§ 1.j. IACA considers the wording "all means necessary" to be meaningless and too obscure.

§ 4.a.1. IACA regrets that EASA's text makes no reference whatsoever to the safety responsibility of the pilot in command. We fail to understand how Europe's safety agency can omit such fundamental role for the pilot in this paragraph.

§ 4.a.2. IACA considers that matters that relate to the transport of dangerous goods should continue to be dealt with under ICAO

regulations, for obvious reasons.

comment 954

comment by: *Dassault Aviation*

0. Preamble : Safety/ Environment protection precedence

0.a. Environment protection has to be considered as an essential objective, nevertheless Safety keeps precedence on environment protection. No environment protection rule may lead to any safety reduction.

0.b. In case of unexpected situation, safety rule prevails against other rules even environment protection ones.

0.c. An environment protection rule must be applied even in case of unexpected event without safety consequences.

**B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 1.
Product design, manufacture and maintenance**

p. 22

comment 4

comment by: *GHayward*

Aircraft are required to be designed as quite as possible and with the lowest emissions possible.

To what lengths is the designer to go related to cost to eliminate 0.1 dB or a fraction of NOx count?

Should there be limits on this effort to design aircraft with emissions that are as low as possible. Should a manufacturer be provided the means to make an argument for not reducing the noise or emissions of a product by a very small amount if the cost is very high or it is not practical for the design?

I think some verbage should be added along these lines.

A similar aregument could be made for the design requirement for aerodromes

comment 224

comment by: *British Gliding Association*

Any product can be made environmentally compatible given enough investment. However, proportionality has to be applied.

Propose 1a;

Aviation products must be designed to be as quiet as reasonably possible.

Propose 1b;

The following emissions species shall be mitigated as much as reasonably possible.

comment 388

comment by: *International Air Transport Association (IATA)*

With regard to the draft Essential Requirements set out in Part B-II of the consultation document, IATA considers that many of the provisions and definitions described are particularly vague and ambiguous and require much

more specificity and guidance, for instance:

- ER 1.a. mentions "*as quiet as possible*". The same phrase appears in other ERs as well.
- ER 1.b. mentions "*as much as possible*". The same phrase appears in other ERs as well.
- ER 1.c. mentions "*minimising trade-offs*". It is unclear what this means.
- ER 1.g. mentions "*particularly harmful to the environment*". Not only is it unclear what this means but also, certain aircraft materials that could be considered "particularly harmful" are actually used for safety reasons and must be considered indispensable as long as no approved alternatives exist.
- ER 1.i. mentions "*all means necessary*". This is far too open-ended.

comment 483

comment by: *General Aviation Manufacturers Association (GAMA)*

GAMA supports the stated environmental objective of this NPA (Paragraph 35) to establish essential requirements for aviation environment protection with flexibility to allow implementing rules to be adapted to the size and nature of the problem taking into account technical feasibility, economic aspects and the benefits for the environment. However, the proposed essential requirements for product design, manufacture and maintenance completely contradict this objective. In fact, the text of the proposed essential requirement would have the opposite affect as it simply states that aviation products must be designed to be "as quiet as possible" and emissions be "mitigated as much as possible" without any recognition that these requirements should even consider taking into account technical feasibility, economic aspects and the benefits for the environment.

In addition, there are many trade-offs and considerations that must be made when designing a new aviation product. Safety is always the highest priority in the design of civil aircraft and engines with additional design considerations such as performance (speed, range, payload), cost, durability, efficiency (fuel consumption), noise, and emissions. These additional considerations are optimized with trade-offs as required to meet customer demands for a safe aviation product that provides the desired performance at an acceptable cost. The essential requirements for product design, manufacture and maintenance focus only on environmental protection requirements and completely discount the fact that other design considerations, particularly safety, must be made and that there will be trade-offs affecting the level of noise and emissions reduction that is technical feasible, economically reasonable, and provides environmental benefit.

1. a-k: This section notes a number of basic technological considerations and parameters that all aviation manufacturers routinely must address in the design, manufacture and maintenance of their products. The design of engines and airframes and other components already entails the careful consideration of tradeoffs between weight, performance, fuel consumption, emissions, noise and other factors. Economic factors already drive manufacturers to design, and operators to demand, the most efficient and therefore most environmentally friendly, aircraft. Introducing unnecessary and arbitrary environmental considerations into a process that already is strongly driven to factor environmental factors only raises costs and reduces efficiency for the purpose of achieving some ill-defined environmental objective which itself has

environmental tradeoffs.

This entire set of essential requirements also suffers from a lack of clarity in definition. For example, what is meant by "The aircraft aerodynamic performance must be optimized taking into account noise and emissions." (1.e)? As stated above, manufacturers already do this; is this intended to introduce a new requirement? It is at best redundant and would introduce extremely subjective measures. Similarly, what is meant by, "An aviation product must not have design features or details that are particularly harmful to the environment." (1.g)? What is the definition of "particularly harmful"?

GAMA is also concerned that, despite assertions to the contrary in the NPA, the draft essential requirements ignore the ongoing work being done at ICAO on aviation and the environment. National experts at ICAO, including from EU member states, work to develop environmental standards for aviation in a global context and in a way that carefully balances environmental considerations, technological innovation and the enormous economic contribution of aviation to the world's economy and mobility of people. GAMA believes that it is important that these essential requirements not usurp ICAO's role as the proper body for the setting of environment and aviation standards.

It is completely appropriate for the Community to establish an appropriate aviation regulatory framework and to incorporate within that framework the essential requirements, implementing regulations, and certification specifications for environmental protection. These environmental standards should always be consistent with ICAO standards and can either be referenced directly (as they are today) or incorporated into the regulatory framework. However, the proposed essential requirements for Product design, manufacture and maintenance are completely inconsistent with the ICAO noise and emissions standards as they are not performance based and simply dictate elimination or minimization of noise and emissions through the incorporation of specific design elements and practices without any specified objective of what is deemed to be acceptable.

comment

719

comment by: *Rolls-Royce plc [DGJ]*

Whilst Rolls-Royce is very supportive of the intentions behind these proposals, we do not completely agree with the texts written herein.

At an administrative level, it is impossible to demonstrate compliance with any requirement to "minimise" any parameter, and even more difficult for a Regulator to find compliance with such a requirement. Also, such terminologies do not give scope for compromise between this and any conflicting Essential Requirement. Either this text should be amended to clarify the hierarchy between any conflicting Essential Requirements, or the Basic Regulation will need to determine the appropriate course of action to be taken where these requirements are contradictory.

At a technical level, there are aspects of this section which we would urge be altered. We would recommend that reference should not be made to specific design features or technologies as occurs, for example, in paragraph 1c. In this particular case, for RR products, staged fuel management systems would not be introduced to minimise SFC; on the contrary, such designs would be introduced for their beneficial effects on emissions. In this way, the over-detailed text is inappropriate for certain products. Rolls-Royce experts would be happy to assist the Agency in drafting suitable and appropriate texts.

With regards to the intent of the proposed regulation, there is an inference that SFC is less damaging than those species listed in paragraph 1.b. It could be argued, however, that poor SFC leads to increased fuel burn and, therefore, increased CO₂ emissions. It also has a consequential effect on fuel uplift, aircraft all-up-weight and, therefore, thrust required, thereby potentially increasing the emission of all the species identified in paragraph 1.b. Today's reality is that, once the requirements of ICAO Annex 16 Volume II have been met, all of these species are considered and the best compromise reached.

comment 836

comment by: *CFM*

We consider this paragraph to be unnecessarily complex, too detailed and overly prescriptive, with a level of details relevant to the Certification Specification requirements, rather than to Essential Requirements. Part of these comments can be illustrated by the following :

1/ Proposed requirements suggesting or forbidding technical design features should be removed (e.g. § II.1a : "... design must include ...", and § II.1g - "...product must not have design features ... harmful to the environment"). Those technical statements may not be relevant/applicable for all products (aircraft, helicopter, engine, propeller), and change with the time. We consider that the manufacturing industry, as owner of the design technology, has the responsibility to use, adapt or develop the most appropriate technical features or concepts complying with Safety and Environmental requirements.

2/ Proposed requirements, that do not define any threshold for the emission species to be regulated (e.g. § II.1b - "... as much as possible ...", § II. 1c - "... to minimize specific fuel consumption ... to minimize trade-offs" ...), should be clarified by referring to ICAO standards internationally agreed limits. Lack of limits may jeopardize the establishment of the design specifications for an engine designer.

3/ Proposed requirements impose on the designers of the product (e.g. § II. 1d), to define the trade-offs between emission species and between noise and emission without target to be achieved. The establishment of the design specifications for a product may be significantly different whether the design must avoid/minimize certain emission species or limit noise or a combination of both. We believe that this trade-off is not only a technical decision, but takes into consideration more global constrains. Regulation must clearly define the objectives to be achieved by the designer.

comment 929

comment by: *Dassault Aviation*

A certification rule must not contain technical solutions which are anyway evolutionary and of engineers business. Any suggestion or forbidding of technological points has to be removed from the "Essential Requirements".

comment 990

comment by: *MT-Propeller Entwicklung GmbH - DOA EASA 21J.020*

It is supported that aircraft, engine, propeller and muffler manufactures should try to design low noise products without any degradation in performance and safety. But this is nothing new in Europe. Several european companies such as Gomolzig, Heggeman, Hoffman Propeller, MT-Propeller, Diamond Aircraft

Industries, Austro Engines, Thielert Engines etc. have been working on and producing such low noise products to minimize aircraft noise for many years.

**B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 1.
Product design, manufacture and maintenance - 1.a.**

p. 22

comment 1 comment by: *Francis Fagegaltier Services*
APU

It seems that this NPA does not address the case of APUs. People walking around aircraft know that they are usually very noisy when used on ground. The proposed essential requirements of 1.a appear as addressing airframe noise and power plant noise. The APU are neither "airframe" nor "power plant". The Agency should clarify the case of APUs.

comment 177 comment by: *KLM Engineering & Maintenance*

B.II.1 : 1.a.1 through 1.a.3
What is "as quiet as possible"? In our opinion this requirement is superfluous because one of the industries main targets is to reduce noise as much as possible.

Specifically with respect to 1.a.3 : Examples or guidance material should be formulated to clarify the intent of this requirement . E.g. a dent, protruding fastener or damaged/missing seal would not materially contribute to airframe noise, as opposed to the arrangement of an extended landing gear or flight control.

comment 187 comment by: *EUROCOPTER*

Wording modification proposal: "The design must ~~include at least consider~~ the following elements:"
Justification: requirement n° 1.a.2. is a technological constraint and should not be imposed in any cases.

comment 311 comment by: *Luftfahrt-Bundesamt*

1.a. , 1.b. and 1.c.
The description of specific design specifications and emissions species should be avoided. Future developments and cognitions may lead to different solutions which do not meet the listed items.

comment 363 comment by: *AIRBUS*

The proposed requirements give a level of details that is too important at the level of Essential Requirements. They are too much prescriptive. The Essential Requirements should focus on the objective only, instead of giving a list of available technologies. The list provided could even be counterproductive as regards to the general environmental objective since the optimization is defined at the overall aircraft level. Detailed requirements are unacceptable from the manufacturers point of view and not in line with current practices in

all other domains (including safety).

comment 413 comment by: *Light Aircraft Association*

Paragraph 1.a.
Statements like "as quiet as possible" are totally impractical and uneconomic!
Most of these requirements are written for CAT and not GA.

comment 450 comment by: *Aerospace Industries Association*

"as quiet as possible" does not explicitly take into account both technical feasibility and economic reasonableness. This paragraph indicates that all of the elements listed must be addressed for every aviation product. Not all are applicable, effective and/or economically reasonable for all products, however. Some caveat is needed to address applicability.

comment 501 ❖ comment by: *Air Transport Association of America, Inc. (ATA)*

In its explanation of the Essential Requirements 1.a-f, EASA simply recounts the basic technological considerations of aircraft and engine design, notes that these matters are currently addressed by ICAO Annex 16 standards, and concludes that the proposals are therefore in line with Annex 16. ATA disagrees with that conclusion. These draft requirements seek to require manufacturers to maximize all noise and emissions reductions, thus setting up potential regulatory requirements that would be impossible to meet under the laws of physics. In fact, manufacturers now devote enormous resources to developing technologies that minimize the inherent tradeoffs between competing environmental parameters (e.g., fuel burn and NOx emissions), and that meet the demands of their airline customers for more fuel efficient aircraft that also offer continuing improvement on noise and emissions. In the ICAO standard setting process, State and stakeholder experts devote enormous resources to the assessment of technological progress and tradeoffs, developing standards that capture the environmental benefits of continuing technological progress in the most cost-effective way. The ICAO standard setting process, with attendant goal-setting to guide further technological development, is a successful example of international harmonization in an extremely complex area, and EASA should withdraw consideration of any requirements that relate to aircraft or engine design. Rather, EASA should continue its current, productive role of participating in the work of ICAO CAEP.

comment 552 comment by: *Deutscher Aero Club e.V. (DAeC)*

1.a.3. Exclude high performance unpowered air sports aircraft.

Justification:

Possible conflict between unpowered high performance air sports aircraft (i.e. gliders) and airframe generated noise.

comment 687 comment by: *AgustaWestland*

Relevant to 1a.:

Wording modification proposal: "The design must ~~include at least consider~~ the following elements:"

Justification: requirement n° 1.a.2. is a technological constraint and should not be imposed in any cases.

comment 777 comment by: *General Aviation Manufacturers Association (GAMA)*

It is unacceptable for an essential requirement to simply state that an aircraft "must be designed to be as quiet as possible" and "minimization of the noise generated by the process of generating thrust" without recognition of any other considerations that must be made. Otherwise, this would require design requirements to continuously change with increasing stringency as soon as a new state-of-the-art technology, capability, or possibly even a change in personal belief/perception in what can be achieved without any flexibility and due consideration.

Essential requirements must provide flexibility in the establishment of implementing regulations and certification specification that include taking into account technical feasibility, economic aspects and the benefits for the environment. They must recognize that safety is always the leading priority and that there are many other design considerations and trade-offs in aircraft design including performance (speed, range, payload), cost, durability, and efficiency (fuel consumption) in addition to noise, and emissions.

comment 878 comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*

Paragraph 1.a.1

ERA is concerned with the use of the term "as quiet as possible" in the text. How will this be demonstrated? The use of the terms "quiet" and "as possible" are highly subjective. It may be appropriate replace the word "possible" with "practical".

Paragraph 1.a.1 to 1.a.3

The stated requirements in these paragraphs are unquantifiable. There needs to be some definition of, for example, "quiet", "minimization", "reduction" etc. Where are the limits specified?

comment 930 comment by: *Dassault Aviation*

Technological points have to be removed from the "Essential Requirements"

comment 955 comment by: *Dassault Aviation*

1.a. Aviation products must be designed to be as quiet as possible, **taking into account technical but also economical and competitiveness factors**. ~~The design must include at least the following elements: [if it is considered that the following items 1a1 o 1a3 have to be kept, the sentence would be this one "The design ~~must~~ **may** include **at least** the following elements":]~~

~~1.a.1. Minimization of the noise generated by the primary process of generating thrust and/or lift by the power plant.~~

~~1.a.2. The application of absorbing elements, shielding elements or other noise control systems to reduce the noise radiated from the aircraft and power plant.~~

~~1.a.3. Reduction of the noise generated by the air flow interacting with the airframe of the aircraft.~~

1.b. The following emissions species shall be mitigated as much as possible, **taking into account technical but also economical and competitiveness factors;**

1.b.1. Nitrous Oxides NO_x (Nitrogen Dioxide NO₂ and Nitric Oxide NO).

1.b.2. Carbon Monoxide (CO).

1.b.3. Unburned Hydrocarbons (UHC).

1.b.4. Smoke.

1.c. Features of power plants intended to minimise specific fuel consumption, ~~such as staged fuel management systems and combustor architecture which reduces cooling air requirements and residence times,~~ must be designed in such a way to minimise trade-offs in the production of emissions species.

1.d. Any trade-offs between design measures for different emissions species, and between noise and emissions, must be taken into account.

1.e. The aircraft aerodynamic performance must be optimized taking into account noise and emissions.

1.f. The total range of normal operating conditions, and areas where the aircraft noise and emissions are of concern, shall be considered when minimising noise and emissions.

1.g. An aviation product must not have design features or details that are particularly harmful to the environment.

1.h. The aircraft systems, equipment and associated appliances installed for environmental protection reasons must be designed, produced and maintained to function as intended under any foreseeable **normal** operating condition throughout the relevant operational envelope of the aircraft and their reliability must be adequate in relation to their intended effect on the environmental compatibility of the product.

1.i. Any instructions, procedures, means, manuals, limitations and inspections needed to ensure continuing compliance of an aviation product with these requirements for environmental protection must be established and provided to the intended users in a clear unambiguous manner.

1.j. The organisations involved in design, production and maintenance of aviation products must have all means necessary to ensure compliance of an aviation product with these requirements for environmental protection, ~~1.k. Such organisations must~~ **including** establishing **ing** arrangements with other relevant organisations as necessary to ensure compliance of an aviation product with these requirements for environmental protection.

comment 964

comment by: AOPA-Sweden

All in all, AOPA has not any particular objection to this chapter other than the general argument that it is widely written and not specific which makes it difficult to follow exactly

comment 1010

comment by: AEA

What is 'as quiet as possible'? In our opinion this requirement is superfluous because one of the industry's main targets is to reduce noise as much as possible.

Specifically with respect to 1.a.3: Examples or guidance material should be formulated to clarify the purpose of this requirement, e.g. a dent, protruding fastener or damaged/missing seal would not materially contribute to airframe noise, in the same way as the arrangement of an extended landing gear or flight control.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 1. Product design, manufacture and maintenance - 1.b.

p. 22

comment 2

comment by: Francis Fagegaltier Services

Engine certification

In the description of the essential requirements, in paragraph B, I, item 16, we find the following statement « Compliance with the ICAO Annex 16, Volume II emissions certification requirements is performed during the engine type certification based on a standard LTO cycle. ». It must be noted that CS-E 1020 (engine emissions) is only applicable to turbine engines. However, the proposed essential requirements of 1.b do not differentiate between piston engines and turbine engines.

The Agency should clarify the ambiguity on applicability of the proposed essential requirements : all engines, i.e. piston engines as well as turbine engines ? Turbine engines only ?

comment 178

comment by: KLM Engineering & Maintenance

B.II.1 : 1.b.3 and 1.b.4

We acknowledged the necessity of reducing emissions as much as possible. To make it clear we think it is essential to define these emissions. Smoke and unburned hydrocarbons are related.

comment 312

comment by: Luftfahrt-Bundesamt

1.a. , 1.b. and 1.c.

The description of specific design specifications and emissions species should be avoided. Future developments and cognitions may lead to different solutions which do not meet the listed items.

comment 363 ❖

comment by: AIRBUS

The proposed requirements give a level of details that is too important at the level of Essential Requirements. They are too much prescriptive. The Essential Requirements should focus on the objective only, instead of giving a list of available technologies. The list provided could even be counterproductive as regards to the general environmental objective since the optimization is defined at the overall aircraft level. Detailed requirements are unacceptable from the manufacturers point of view and not in line with current practices in

all other domains (including safety).

comment 415

comment by: *Light Aircraft Association*

Paragraph 1.b.

Again the term "as much as possible" is not definitive and is therefore impractical. Not starting the engine is the only way to comply!

The requirements of a new, modern piston engine and those of an engine designed in the 1930's will be extremely different. Most of GA's aircraft use engines first designed in the 1930's and should be able to continue flying without let or hinderance across the EC.

comment 417

comment by: *EUROCONTROL*

Proposed text

*"The following emissions species shall be **minimised** as much as possible:*

1.b.1. Nitrous Oxides NO_x (Nitrogen Dioxide NO₂ and Nitric Oxide NO).

1.b.2. Carbon Monoxide (CO)

1.b.3. Unburned Hydrocarbons (UHC)

~~1.b.4. Smoke-Particulate Matter (PM)~~

Justification

We understand the spirit of the "Essential Requirements" as staying non prescriptive/high-level with details to be developed through "Implementing Rules/measures". If so, we propose to remove references to specific emissions species and refer to the future development of implementing measures. If not, we propose to replace the wording as proposed (more plausible than smoke to regulate). We understand this list is taken from ICAO but does this mean that CO₂ for instance will not be covered by EASA?

comment 501 ❖

comment by: *Air Transport Association of America, Inc. (ATA)*

In its explanation of the Essential Requirements 1.a-f, EASA simply recounts the basic technological considerations of aircraft and engine design, notes that these matters are currently addressed by ICAO Annex 16 standards, and concludes that the proposals are therefore in line with Annex 16. ATA disagrees with that conclusion. These draft requirements seek to require manufacturers to maximize all noise and emissions reductions, thus setting up potential regulatory requirements that would be impossible to meet under the laws of physics. In fact, manufacturers now devote enormous resources to developing technologies that minimize the inherent tradeoffs between competing environmental parameters (e.g., fuel burn and NO_x emissions), and that meet the demands of their airline customers for more fuel efficient aircraft that also offer continuing improvement on noise and emissions. In the ICAO standard setting process, State and stakeholder experts devote enormous resources to the assessment of technological progress and tradeoffs, developing standards that capture the environmental benefits of continuing technological progress in the most cost-effective way. The ICAO standard setting process, with attendant goal-setting to guide further technological development, is a successful example of international harmonization in an extremely complex area, and EASA should withdraw consideration of any requirements that relate to aircraft or engine design. Rather, EASA should continue its current, productive role of participating in the work of ICAO CAEP.

comment 780 comment by: *General Aviation Manufacturers Association (GAMA)*

It is unacceptable for an essential requirement to simply state that aircraft emissions "shall be mitigated as much as possible" without recognition of any other considerations that must be made. Otherwise, this would require design requirements to continuously change with increasing stringency as soon as a new state-of-the-art technology, capability, or possibly even a change in personal belief/perception in what can be achieved without any flexibility and due consideration.

Essential requirements must provide flexibility in the establishment of implementing regulations and certification specification that include taking into account technical feasibility, economic aspects and the benefits for the environment. They must recognize that safety is always the leading priority and that there are many other design considerations and trade-offs in aircraft design including performance (speed, range, payload), cost, durability, and efficiency (fuel consumption) in addition to noise, and emissions.

comment 879 comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*

ERA notes and fully supports the position that CO2 should not be legislated on as it is being tackled by the EU Emissions Trading Scheme which has recently received approval from the European Parliament and Council.

comment 1011 comment by: *AEA*

Indents 1.b.3 and 1.b.4

AEA acknowledge the need to reduce emissions as much as possible. However, it is essential to define these emissions. Smoke and unburned hydrocarbons are related.

CO2 is not specifically mentioned, which is strange as these emissions are currently thought to have the greatest effect on the global climate.

**B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 1.
Product design, manufacture and maintenance - 1.c.**

p. 22

comment 188 comment by: *EUROCOPTER*

More precise lower level requirements based on relative minimisation weights between the different emission species, or specific guidance, will be needed in order to comply with the requirement of performing trade-offs in the production of emission species.

comment 313 comment by: *Luftfahrt-Bundesamt*

1.a. , 1.b. and 1.c.

The description of specific design specifications and emissions species should be avoided. Future developments and cognitions may lead to different solutions which do not meet the listed items.

comment 363 ❖

comment by: AIRBUS

The proposed requirements give a level of details that is too important at the level of Essential Requirements. They are too much prescriptive. The Essential Requirements should focus on the objective only, instead of giving a list of available technologies. The list provided could even be counterproductive as regards to the general environmental objective since the optimization is defined at the overall aircraft level. Detailed requirements are unacceptable from the manufacturers point of view and not in line with current practices in all other domains (including safety).

comment 422

comment by: EUROCONTROL

Proposed text

*"Features of power plants intended to minimise specific fuel consumption, such as staged fuel management systems and combustor architecture which reduces cooling air requirements and residence times, must be designed in such a way to minimise **overall environmental impact from** the production of **the different** emissions species"*

Justification

We propose to change the text as proposed. It would seem necessary to define what the goal of "trade-off" is (here emission-emission trade off). The objective would perhaps be to minimise environmental impact rather than minimising environment-environment emissions?

comment 501 ❖

comment by: Air Transport Association of America, Inc. (ATA)

In its explanation of the Essential Requirements 1.a-f, EASA simply recounts the basic technological considerations of aircraft and engine design, notes that these matters are currently addressed by ICAO Annex 16 standards, and concludes that the proposals are therefore in line with Annex 16. ATA disagrees with that conclusion. These draft requirements seek to require manufacturers to maximize all noise and emissions reductions, thus setting up potential regulatory requirements that would be impossible to meet under the laws of physics. In fact, manufacturers now devote enormous resources to developing technologies that minimize the inherent tradeoffs between competing environmental parameters (e.g., fuel burn and NOx emissions), and that meet the demands of their airline customers for more fuel efficient aircraft that also offer continuing improvement on noise and emissions. In the ICAO standard setting process, State and stakeholder experts devote enormous resources to the assessment of technological progress and tradeoffs, developing standards that capture the environmental benefits of continuing technological progress in the most cost-effective way. The ICAO standard setting process, with attendant goal-setting to guide further technological development, is a successful example of international harmonization in an extremely complex area, and EASA should withdraw consideration of any requirements that relate to aircraft or engine design. Rather, EASA should continue its current, productive role of participating in the work of ICAO CAEP.

comment 556

comment by: ECA - European Cockpit Association

It seems that measures to reduce CO2 are hidden in the objectives of this ER. As CO2 is the most prominently publicly discussed emission species, the term should be used (at least in an explanatory mode) in this paragraph.

- comment 688 comment by: *AgustaWestland*
 More precise lower level requirements based on relative minimisation weights or specific guidance will be needed in order to comply with the requirement of performing trade-offs in the production of emission species, and particularly for trade-offs between noise and emission **where ICAO Annex 16 does not help (ICAO Annex 16 specifies noise and emissions limits independently)**.
- comment 781 comment by: *General Aviation Manufacturers Association (GAMA)*
 Manufacturers must make many considerations and trade-offs in aircraft design including performance (speed, range, payload), cost, durability, and efficiency (fuel consumption) in addition to noise, and emissions.

 It is not clear what is meant by this proposed requirement to minimise trade-offs between specific fuel consumption and emissions. Please provide an example of an implementing regulation or certification specification for this requirement. How would this affect current aircraft design practices?
- comment 880 comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*
 ERA believes that this is already designed in this way.
- comment 931 comment by: *Dassault Aviation*
 Technological points have to be removed from the "Essential Requirements"

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 1. Product design, manufacture and maintenance - 1.d.

p. 22

- comment 189 comment by: *EUROCOPTER*
 More precise lower level requirements based on relative minimisation weights between noise and emission will be needed in order to comply with the requirement of performing trade-offs between noise and emission, taking into account that ICAO Annex 16 does not help in this case (ICAO Annex 16 specifying noise and emissions limits independently).
- comment 363 ❖ comment by: *AIRBUS*
 The proposed requirements give a level of details that is too important at the level of Essential Requirements. They are too much prescriptive. The Essential Requirements should focus on the objective only, instead of giving a list of available technologies. The list provided could even be counterproductive as regards to the general environmental objective since the optimization is defined at the overall aircraft level. Detailed requirements are unacceptable from the manufacturers point of view and not in line with current practices in all other domains (including safety).

comment 421

comment by: EUROCONTROL

Proposed text

"Any trade-offs between design measures for different emissions species, and between noise and emissions, must be taken into account **with the aim of minimising the overall environmental impact**"

Justification

We propose to change the text as proposed. It would seem necessary to define what the goal of "trade-off" is (here emission-emission trade off). The objective would perhaps be to minimise environmental impact rather than minimising environment-environment emissions?

comment 453

comment by: Aerospace Industries Association

1.d and 1.e are essentially redundant requirements, and should be combined into a single requirement of "Trade-offs during the design process should take into account the different species of emissions and noise to benefit the environment.". In 1.d, performance, noise and emissions are part of system design trade-offs.

comment 501 ❖

comment by: Air Transport Association of America, Inc. (ATA)

In its explanation of the Essential Requirements 1.a-f, EASA simply recounts the basic technological considerations of aircraft and engine design, notes that these matters are currently addressed by ICAO Annex 16 standards, and concludes that the proposals are therefore in line with Annex 16. ATA disagrees with that conclusion. These draft requirements seek to require manufacturers to maximize all noise and emissions reductions, thus setting up potential regulatory requirements that would be impossible to meet under the laws of physics. In fact, manufacturers now devote enormous resources to developing technologies that minimize the inherent tradeoffs between competing environmental parameters (e.g., fuel burn and NOx emissions), and that meet the demands of their airline customers for more fuel efficient aircraft that also offer continuing improvement on noise and emissions. In the ICAO standard setting process, State and stakeholder experts devote enormous resources to the assessment of technological progress and tradeoffs, developing standards that capture the environmental benefits of continuing technological progress in the most cost-effective way. The ICAO standard setting process, with attendant goal-setting to guide further technological development, is a successful example of international harmonization in an extremely complex area, and EASA should withdraw consideration of any requirements that relate to aircraft or engine design. Rather, EASA should continue its current, productive role of participating in the work of ICAO CAEP.

comment 689

comment by: AgustaWestland

More precise lower level requirements based on relative minimisation weights or specific guidance will be needed in order to comply with the requirement of performing trade-offs in the production of emission species, and particularly for trade-offs between noise and emission **where ICAO Annex 16 does not help (ICAO Annex 16 specifies noise and emissions limits independently).**

comment 783 comment by: *General Aviation Manufacturers Association (GAMA)*

Manufacturers must make many considerations and trade-offs in aircraft design including performance (speed, range, payload), cost, durability, and efficiency (fuel consumption) in addition to noise, and emissions.

It is not clear what is meant by this proposed requirement to take into account any trade-offs between design measures and between noise and emissions. Please provide an example of an implementing regulation or certification specification for this requirement. How would this affect current aircraft design and certification practices?

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 1. Product design, manufacture and maintenance - 1.e.

p. 22

comment 190 comment by: *EUROCOPTER*

This requirement should be deleted, because already covered by essential requirements n° 1.a., 1.b. and 1.d..

comment 363 ❖ comment by: *AIRBUS*

The proposed requirements give a level of details that is too important at the level of Essential Requirements. They are too much prescriptive. The Essential Requirements should focus on the objective only, instead of giving a list of available technologies. The list provided could even be counterproductive as regards to the general environmental objective since the optimization is defined at the overall aircraft level. Detailed requirements are unacceptable from the manufacturers point of view and not in line with current practices in all other domains (including safety).

comment 424 comment by: *EUROCONTROL*

Proposed text
*"The aircraft aerodynamic performance must be optimized taking into account **fuel consumption**, noise and emissions."*

Justification
If CO₂ is out of scope because it is directly associated with climate change (outside EASA scope) - therefore fuel consumption should be as well. Otherwise, for the purpose of fuel conservation, engine design and aerodynamic efficiency considerations in the Essential Requirements could actually specify the need to reduce fuel consumption (it will include CO₂ emissions as it is directly linked).

comment 468 comment by: *Aerospace Industries Association*

1.d and 1.e are essentially redundant requirements, and should be combined into a single requirement of "Trade-offs during the design process should take into account the different species of emissions and noise to benefit the environment." Aerodynamic performance is typically the outcome of a system design/trade-offs process and not an optimization. Noise and emissions are part of this process. Should read as "The aircraft aerodynamic performance

must take into account noise and emissions."

comment 501 ❖ comment by: *Air Transport Association of America, Inc. (ATA)*

In its explanation of the Essential Requirements 1.a-f, EASA simply recounts the basic technological considerations of aircraft and engine design, notes that these matters are currently addressed by ICAO Annex 16 standards, and concludes that the proposals are therefore in line with Annex 16. ATA disagrees with that conclusion. These draft requirements seek to require manufacturers to maximize all noise and emissions reductions, thus setting up potential regulatory requirements that would be impossible to meet under the laws of physics. In fact, manufacturers now devote enormous resources to developing technologies that minimize the inherent tradeoffs between competing environmental parameters (e.g., fuel burn and NOx emissions), and that meet the demands of their airline customers for more fuel efficient aircraft that also offer continuing improvement on noise and emissions. In the ICAO standard setting process, State and stakeholder experts devote enormous resources to the assessment of technological progress and tradeoffs, developing standards that capture the environmental benefits of continuing technological progress in the most cost-effective way. The ICAO standard setting process, with attendant goal-setting to guide further technological development, is a successful example of international harmonization in an extremely complex area, and EASA should withdraw consideration of any requirements that relate to aircraft or engine design. Rather, EASA should continue its current, productive role of participating in the work of ICAO CAEP.

comment 588 comment by: *Light Aircraft Association*

The limited range of GA aircraft aerodynamic performance makes very opportunity to "optimise". If this item is related to CAT then GA should be removed from the discussion.

Response from the Vintage Aircraft Club

Historic aircraft by their very nature are often flown to the optimum aerodynamic performance and cannot be changed. This section should only be for aircraft designed from the date of any new regulation onwards and not attempt to retro-regulate.

comment 690 comment by: *AgustaWestland*

We propose to delete this requirement, because already covered by requirements n° 1.a., 1.b. and 1.d.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 1. Product design, manufacture and maintenance - 1.f.

p. 22

comment 191 comment by: *EUROCOPTER*

The total range of normal operating conditions is very broad for rotorcraft and could lead to an indeterminately large requirement for demonstrating noise compliance. The flight conditions defined in ICAO Annex 16 for rotorcraft have been developed to represent the loudest conditions and thus represent the total range of normal operations.

Wording modification proposal: "**Flight conditions representative of the**
The total range of normal operating conditions, and areas where the aircraft noise and emissions are of concern, shall be considered when minimising noise and emissions.

comment 363 ❖

comment by: AIRBUS

The proposed requirements give a level of details that is too important at the level of Essential Requirements. They are too much prescriptive. The Essential Requirements should focus on the objective only, instead of giving a list of available technologies. The list provided could even be counterproductive as regards to the general environmental objective since the optimization is defined at the overall aircraft level. Detailed requirements are unacceptable from the manufacturers point of view and not in line with current practices in all other domains (including safety).

comment 455

comment by: Aerospace Industries Association

The "total range of normal operating conditions" is too broad and could lead to an essentially unbounded requirement for demonstrating noise compliance.

comment 501 ❖

comment by: Air Transport Association of America, Inc. (ATA)

In its explanation of the Essential Requirements 1.a-f, EASA simply recounts the basic technological considerations of aircraft and engine design, notes that these matters are currently addressed by ICAO Annex 16 standards, and concludes that the proposals are therefore in line with Annex 16. ATA disagrees with that conclusion. These draft requirements seek to require manufacturers to maximize all noise and emissions reductions, thus setting up potential regulatory requirements that would be impossible to meet under the laws of physics. In fact, manufacturers now devote enormous resources to developing technologies that minimize the inherent tradeoffs between competing environmental parameters (e.g., fuel burn and NOx emissions), and that meet the demands of their airline customers for more fuel efficient aircraft that also offer continuing improvement on noise and emissions. In the ICAO standard setting process, State and stakeholder experts devote enormous resources to the assessment of technological progress and tradeoffs, developing standards that capture the environmental benefits of continuing technological progress in the most cost-effective way. The ICAO standard setting process, with attendant goal-setting to guide further technological development, is a successful example of international harmonization in an extremely complex area, and EASA should withdraw consideration of any requirements that relate to aircraft or engine design. Rather, EASA should continue its current, productive role of participating in the work of ICAO CAEP.

comment 691

comment by: AgustaWestland

The total range of normal operating conditions is very broad for rotorcraft and could lead to an indeterminately large requirement for demonstrating noise compliance. The flight conditions defined in ICAO Annex 16 for rotorcraft have been developed to represent the loudest conditions and thus represent the total range of normal operations.

Wording modification proposal: "**Flight conditions representative of the**

The total range of normal operating conditions, and areas where the aircraft noise and emissions are of concern, shall be considered when minimising noise and emissions.

**B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 1.
Product design, manufacture and maintenance - 1.g.**

p. 22

comment 179

comment by: *KLM Engineering & Maintenance***B.II.1 : 1.g**

Many aircraft and aviation products have design features or details that are harmful to the environment such as halon fire extinguishing systems, cadmium plated parts etc. These materials are used for safety reasons and are indispensable as long there are no approved alternatives available.

It is therefore proposed to rephrase § 1.g. as follows:

§ 1.g. Unless essential for safety, an aviation product must not have design features or details that are particularly harmful to the environment.

In addition, it would be appropriate to provide examples or guidance on what kind of design features or details that are essential for safety are acceptable "to be harmful to the environment", and to what extent measures should be taken to mitigate the emissions as much as possible.

comment 225

comment by: *British Gliding Association*

Is this statement necessary as the underpinning detail exists elsewhere in 1?

If it is necessary, 'particularly' harmful is not a clear statement.

Proposal

Replace particularly with 'significantly' harmful

comment 364

comment by: *AIRBUS*

The paragraph 1g reads:

"An aviation product must not have design features or details that are particularly harmful to the environment."

This paragraph is useless and should be deleted. Indeed, if the aircraft complies with the certification criteria, it will not have design features or details that are particularly harmful to the environment.

comment 416

comment by: *Light Aircraft Association*

Paragraph 1 g suggesting that an aviation product should not have details that are harmful to the environment is also impractical and particularly naïve. What constitutes a "particularly harmful feature"? Without some definitions these 'statements' cannot be effectively evaluated.

Response from the Vintage Aircraft Club

Paragraph 1.g.

Parts for historic aircraft cannot comply with such sweeping statements.

- comment 456 comment by: *Aerospace Industries Association*
 "particularly harmful" is not a well defined limit
- comment 502 comment by: *Air Transport Association of America, Inc. (ATA)*
 This proposed requirement is unnecessary and simply incomprehensible. What are "design features or details that are particularly harmful to the environment" that EASA seeks to prohibit ?
- comment 718 comment by: *Rolls-Royce plc [DGJ]*
 It is unclear what is meant by "particularly harmful" as distinct from simply "harmful".
- comment 784 comment by: *General Aviation Manufacturers Association (GAMA)*
 Manufacturers must make many considerations and trade-offs in aircraft design including performance (speed, range, payload), cost, durability, and efficiency (fuel consumption) in addition to noise, and emissions.
 It is not clear what is meant by this proposed requirement that an aircraft must not have design features or details that are particularly harmful to the environment. Please provide an example of an implementing regulation or certification specification for this requirement. How would this affect current aircraft design practices? What would be considered to be "particularly harmful?"
- comment 881 comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*
 It is a statement of fact to say that all aircraft are harmful to the environment in some way. It is not appropriate to make this a requirement where a substitute does not exist or where safety is affected. A product cannot be banned where there is no replacement.
- comment 932 comment by: *Dassault Aviation*
 How will EASA decide that some details are harmful to the environment? As stated above, some form of check mechanism is needed.
- comment 991 comment by: *MT-Propeller Entwicklung GmbH - DOA EASA 21J.020*
 Paragraph 1.g.1 of proposed essential requirements must be re-written or deleted because currently according to this sentence, all aircrafts with engines using Avgas, Jet Fuel, Diesel are not allowed to be operated in the future because these engines have design features that are particularly harmful to the environment. They have emissions and they will always have emissions like cars, trucks, ships, and all other transportation vehicle which use fossil fuels.
- comment 1012 comment by: *AEA*
 This requirement does not take into account substances where substitutes do

not perform adequately or are not available and where safety or function might be directly affected anyway. A current example is the essential use exemption that enables the installation of halon fire extinguishing systems on board aircraft. Many aircraft and aviation products have design features or details that are harmful to the environment, such as cadmium plated parts, etc. These materials are used for safety reasons and are indispensable as long there are no approved alternatives available.

It is therefore proposed to rephrase 1.g. as follows:

1.g. 'Unless essential for safety, an aviation product must not have design features or details that are particularly harmful to the environment'.

In addition, it would be appropriate to provide examples or guidance on what kind of design features or details that are essential for safety are deemed 'to be harmful to the environment', and to what extent measures should be taken to mitigate emissions as much as possible.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 1. Product design, manufacture and maintenance - 1.h.

p. 22

comment 192

comment by: EUROCOPTER

Wording modification proposal: "...under any **foreseeable normal** operating condition..."

Justification: it should be allowed that aircraft systems and associated appliances installed for environmental conditions reasons do not function normally during abnormal or emergency operating conditions, as it is already allowed for safety equipment (example: electrical generation system). In addition, this would be consistent with ER n°1.f. which requires considering "the total range of **normal** operating conditions".

comment 365

comment by: AIRBUS

§ 1h

The paragraph 1h reads:

"The aircraft systems, equipment and associated appliances installed for environmental protection reasons must be designed, produced and maintained to function as intended under any foreseeable operating condition throughout the relevant operational envelope of the aircraft and their reliability must be adequate in relation to their intended effect on the environmental compatibility of the product."

As such systems may be installed on a voluntarily basis, their temporary unavailability should not result in flight restrictions.

comment 457

comment by: Aerospace Industries Association

"foreseeable" extends the requirement beyond normal operations. Requirement should be limited to "normal" not "foreseeable" as this requirement could lead to an unintended restriction on the use noise reduction technologies.

comment 503 comment by: *Air Transport Association of America, Inc. (ATA)*
 The proposals of 1.h-i would unnecessarily involve EASA in commercial issues relating to warranties and content of manuals.

comment 692 comment by: *AgustaWestland*
Wording modification proposal: "...under any **foreseeable normal** operating condition..."
Justification: it should be allowed that aircraft systems and associated appliances installed for environmental conditions reasons do not function normally during abnormal or emergency operating conditions, as it is already allowed for safety equipment (example: electrical generation system). In addition, this would be consistent with ER n°1.f. which requires considering "the total range of **normal** operating conditions".

comment 786 comment by: *General Aviation Manufacturers Association (GAMA)*
 It is not clear whether thsi proposed requirement is intended to go beyond existing requirement for the design and certification of aviation products (Part 21 and applicable certification specifications). Please provide an example of an implementing regulation or certification specification for this requirement and whether it would have any affect on current aircraft design and certification practices?

comment 933 comment by: *Dassault Aviation*
 According to § 1f, operational envelope is in normal conditions.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 1. Product design, manufacture and maintenance - 1.i.

p. 22

comment 458 comment by: *Aerospace Industries Association*
 Does "aviation product(s)" mean aircraft or does it go down to the level of aircraft components and subcomponents? Would recommend that this requirement be put against the aircraft type design with flow down to components occurring as is done now for certification.

comment 504 comment by: *Air Transport Association of America, Inc. (ATA)*
 The proposals of 1.h-i would unnecessarily involve EASA in commercial issues relating to warranties and content of manuals.

comment 787 comment by: *General Aviation Manufacturers Association (GAMA)*
 It is not clear whether thsi proposed requirement is intended to go beyond existing requirement for the design and certification of aviation products (Part 21 and applicable certification specifications). Please provide an example of an implementing regulation or certification specification for this requirement and whether it would have any affect on current aircraft design and certification practices?

**B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 1.
Product design, manufacture and maintenance - 1.j.**

p. 22

- comment 180 comment by: *KLM Engineering & Maintenance*
- B.II.1** : 1.j
§1.j. The organisations involved in design, production and maintenance of aviation products must have all means necessary to ensure compliance of an aviation product with these requirements for environmental protection".
- It is unclear what is meant with "all means necessary". Examples or guidance are needed.
-
- comment 459 comment by: *Aerospace Industries Association*
- Should read as "The organisations involved in design, production, modification and maintenance of aviation products"
- Does "aviation product(s)" mean aircraft or does it go down to the level of aircraft components and subcomponents? Would recommend that this requirement be put against the aircraft type design with flow down to components occurring as is done now for certification.
-
- comment 505 comment by: *Air Transport Association of America, Inc. (ATA)*
- Proposals 1.j-k seek to hold not only designers and producers of any aviation product, but also those who maintain them - airlines -- to "have all means necessary to ensure compliance" of the product with the proposed EASA rules, and enlist other "relevant organizations" in such efforts. ATA cannot ascertain what this means, except that it would obviously impose unnecessary burdens upon airlines that already have every incentive to maintain their equipment to minimize fuel burn and emissions.
-
- comment 575 comment by: *Light Aircraft Association*
- Paragraph 1j The concept of requiring all "organisations involved in design, production and maintenance of aviation products" to have "all means necessary" to ensure compliance with environmental protection would be both prohibitively expensive and virtually unworkable in practice. As an example, it is impossible to acquire all the relevant research knowledge and equipment on noise or emissions! For General Aviation the amount of equipment and expertise in its correct operation for emission control would prove uneconomic and would not change the operation of existing GA aircraft emissions at all.
-
- comment 717 comment by: *Rolls-Royce plc [DGJ]*
- The theoretical purpose of this requirement is unclear, particularly in the way it affects Production and Maintenance activities. The point of Production should be to manufacture a product which is compliant with the Type Design; the point of Maintenance should be to restore a product back into compliance with the Type Design. It should not matter whether any particular aspect of such activity is related to Safety, Environmental protection or any other concern;

the crucial issue is whether or not the work has been carried out in accordance with the Approved data.

comment 882 comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*

The stated requirements in this paragraph are unquantifiable, in particular the use of the term "all means necessary".

comment 934 comment by: *Dassault Aviation*

A compliance with § 1.k means a non-compliance with §1.j: so these § have to be merged. DA understands that the extension of organizations to be compliant with environment protection would be included in an extended DOA. The details of such an DOA extension would be discussed in the frame of a Part 21 amendment.

comment 1013 comment by: *AEA*

It is unclear what is meant by 'all means necessary'. Examples or guidance are needed.

**B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 1.
Product design, manufacture and maintenance - 1.k.**

p. 22

comment 506 comment by: *Air Transport Association of America, Inc. (ATA)*

Proposals 1.j-k seek to hold not only designers and producers of any aviation product, but also those who maintain them - airlines -- to "have all means necessary to ensure compliance" of the product with the proposed EASA rules, and enlist other "relevant organizations" in such efforts. ATA cannot ascertain what this means, except that it would obviously impose unnecessary burdens upon airlines that already have every incentive to maintain their equipment to minimize fuel burn and emissions.

comment 935 comment by: *Dassault Aviation*

A compliance with § 1.k means a non-compliance with §1.j: so these § have to be merged. DA understands that the extension of organizations to be compliant with environment protection would be included in an extended DOA. The details of such an DOA extension would be discussed in the frame of a Part 21 amendment.

**B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 2.
Aerodromes**

p. 23

comment 418 comment by: *Light Aircraft Association*

The definition of "aerodromes" is too wide for this section to accommodate all eventualities.
The section is written for CAT "Airports" and not GA grass airfields.

comment 460 comment by: *Aerospace Industries Association*

Does this section infer that noise data would be required from manufacturers for aerodromes to satisfy these requirements? Such a data requirement could be substantial, including not only generic noise abatement procedures and data, but also aerodrome specific noise data as well as noise data for noise reduction systems not eligible for use in noise certification.

comment 508 ❖ comment by: *Air Transport Association of America, Inc. (ATA)*

With respect to design and operational measures taken to address noise, EASA's proposed requirements would again undermine a role accorded to State and local authorities under the ICAO Balanced Approach to Noise, as applied in EU States under Directive 2002/30/EC. Those parties are best able to consider measures appropriate for local conditions.

Design and operational measures taken to address emissions from aircraft and other airport sources are governed by national laws, which are applied as appropriate for air quality conditions in areas that include airports. These localized air quality assessments do not lend themselves to generalized measures of the type that EASA contemplates. Also, ICAO is in the process of developing guidance for use by local authorities in assessing air quality in the vicinity of airports. ICAO's Airport Air Quality Guidance Manual, Doc. 9889 (2007) contains detailed guidance on emission inventories for aircraft and airport sources, and future chapters will address dispersion modeling and mitigation measures.

comment 716 comment by: *Rolls-Royce plc [DGJ]*

In general, this subject falls outside Rolls-Royce's direct involvement. However, we would wish to reiterate that none of these requirements can be allowed to encourage operation in conflict with the recommended engine operating instructions for safety; this proviso is not made clear in the text.

comment 940 comment by: *Dassault Aviation*

Why will not EASA take into account the future ICAO guidances in relationship with Air Quality?

comment 965 comment by: *AOPA-Sweden*

Based on what we have mentioned above, this chapter should be excluded all together. Environmental issues on and around aerodromes should be governed and implemented by local authorities which are to use already applicable environmental laws.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 2. Aerodromes - 2.a.

p. 23

comment 76 comment by: *FRAPORT AG*

Most european airports have already this policy.

comment 226 comment by: *British Gliding Association*

Again proportionality is required here.

Propose;

...that noise and emissions from its aviation activities are reasonably minimized.

comment 314 comment by: *Luftfahrt-Bundesamt*

2.a. to j.
General: The LBA does not see any necessity for EASA to cover this task

comment 425 comment by: *EUROCONTROL*

Proposed text
"Unless this would represent a safety issue, the design of an aerodrome movement area and other operating areas must be such that noise and emissions from its aviation activities are minimized as much as possible"

Justification
We propose to change the text as proposed. Obviously there are safety essential requirements so this is true for everything. Propagation distribution of noise and emissions pollution are also important as well as interaction between the species on the local population. Therefore the aerodrome design need not be adapted to minimise noise and emissions.

comment 508 ❖ comment by: *Air Transport Association of America, Inc. (ATA)*

With respect to design and operational measures taken to address noise, EASA's proposed requirements would again undermine a role accorded to State and local authorities under the ICAO Balanced Approach to Noise, as applied in EU States under Directive 2002/30/EC. Those parties are best able to consider measures appropriate for local conditions.

Design and operational measures taken to address emissions from aircraft and other airport sources are governed by national laws, which are applied as appropriate for air quality conditions in areas that include airports. These localized air quality assessments do not lend themselves to generalized measures of the type that EASA contemplates. Also, ICAO is in the process of developing guidance for use by local authorities in assessing air quality in the vicinity of airports. ICAO's Airport Air Quality Guidance Manual, Doc. 9889 (2007) contains detailed guidance on emission inventories for aircraft and airport sources, and future chapters will address dispersion modeling and mitigation measures.

comment 557 comment by: *ECA - European Cockpit Association*

This paragraph might create a conflict with safety requirements, e.g where hazardous runway crossings are avoided by perimeter taxiways. If the supremacy of safety requirements is not maintained, these environmental

protection requirements would jeopardize safety.

comment 590 comment by: *ADV*

We strongly oppose the proposals in para 2.a. and 2.b. However, we would agree the principle of tackling all sources of noise/pollution at and around an airport, in a balanced way, and not concentrating on aircraft alone.

comment 639 comment by: *Light Aircraft Association*

Paragraph 2.a.
The terminology of "as much as possible" is not only not definitive but it is impractical to attempt to carry out.

comment 883 comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*

ERA believes that EASA should not be involved in aerodrome design.

**B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 2.
Aerodromes - 2.b.**

p. 23

comment 40 comment by: *Royal Aeronautical Society*

The principles published in ICAO PANS OPS and PANS ATM regarding the respective responsibilities of aerodrome operators and the operators of aircraft must be respected to ensure that neither is tasked with responsibilities that lie outside his competence.

comment 77 comment by: *FRAPORT AG*

Most european airports have already this policy.

comment 315 comment by: *Luftfahrt-Bundesamt*

2.a. to j.
General: The LBA does not see any necessity for EASA to cover this task

comment 508 ❖ comment by: *Air Transport Association of America, Inc. (ATA)*

With respect to design and operational measures taken to address noise, EASA's proposed requirements would again undermine a role accorded to State and local authorities under the ICAO Balanced Approach to Noise, as applied in EU States under Directive 2002/30/EC. Those parties are best able to consider measures appropriate for local conditions.

Design and operational measures taken to address emissions from aircraft and other airport sources are governed by national laws, which are applied as appropriate for air quality conditions in areas that include airports. These localized air quality assessments do not lend themselves to generalized measures of the type that EASA contemplates. Also, ICAO is in the process of developing guidance for use by local authorities in assessing air quality in the

vicinity of airports. ICAO's Airport Air Quality Guidance Manual, Doc. 9889 (2007) contains detailed guidance on emission inventories for aircraft and airport sources, and future chapters will address dispersion modeling and mitigation measures.

comment 558 comment by: ECA - European Cockpit Association

This paragraph might create a conflict with safety requirements, e.g where hazardous runway crossings are avoided by perimeter taxiways. If the supremacy of safety requirements is not maintained, these environmental protection requirements would jeopardize safety.

comment 591 comment by: ADV

We strongly oppose the proposals in para 2.a. and 2.b. However, we would agree the principle of tackling all sources of noise/pollution at and around an airport, in a balanced way, and not concentrating on aircraft alone.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 2. Aerodromes - 2.c.

p. 23

comment 78 comment by: FRAPORT AG

Policy already established

comment 316 comment by: Luftfahrt-Bundesamt

2.a. to j.
General: The LBA does not see any necessity for EASA to cover this task

comment 366 comment by: AIRBUS

The paragraph 2c reads:

"Landing and departure procedures must be designed in a way that minimizes as possible noise and emissions from aircraft operations around aerodromes. This will include area navigation, management of thrust, flaps, speed, altitude and track over the ground or the use of specific operational procedures based on the aircraft type's environmental characteristics and the environment of the aerodrome."

- The domains that have been underlined are out of the scope of the aerodrome authority and responsibilities. Their management depends on the characteristics of the aircraft as well as on the operational context in which the aircraft is used.
- The requirement is too prescriptive and provides means of compliance instead of the general objective. The solution that will be the most efficient with respect to the environment objective results from a combination of measures and trade-offs between parameters such as aircraft characteristics, operational constraints or aerodrome limitations that can be variable from one day to another.

comment 426

comment by: EUROCONTROL

Proposed text

"Landing and departure procedures must be designed in a way that minimizes as ***much as*** possible noise and emissions from aircraft operations around aerodromes. ~~***This will include area navigation, management of thrust, flaps, speed, altitude and track over the ground or the use of specific operational procedures based on the aircraft type's environmental characteristics and the environment of the aerodrome***~~"

Justification

We propose to change the text as proposed. "This will include..." indicates that this will certainly be defined in an implementing rule and therefore might need to be referred to and/or the text deleted. When considering any operational procedure aiming at minimizing noise impact, a clear distinction should be made between the components/parameters of the procedure which can be imposed and easily checked for compliance by ATC or other "ground-based" bodies, and those which are highly dependent on the aircraft performance (mostly in the vertical phase) and cannot easily be monitored for compliance against imposed standards/constraints. The first category includes respect of route/position, altitude and speed schedule (for arrivals) constraints. The second category includes more aircraft-specific parameters (such as thrust and flaps management), which cannot be imposed/defined as such in a standard noise abatement procedure.

comment 508 ❖

comment by: Air Transport Association of America, Inc. (ATA)

With respect to design and operational measures taken to address noise, EASA's proposed requirements would again undermine a role accorded to State and local authorities under the ICAO Balanced Approach to Noise, as applied in EU States under Directive 2002/30/EC. Those parties are best able to consider measures appropriate for local conditions.

Design and operational measures taken to address emissions from aircraft and other airport sources are governed by national laws, which are applied as appropriate for air quality conditions in areas that include airports. These localized air quality assessments do not lend themselves to generalized measures of the type that EASA contemplates. Also, ICAO is in the process of developing guidance for use by local authorities in assessing air quality in the vicinity of airports. ICAO's Airport Air Quality Guidance Manual, Doc. 9889 (2007) contains detailed guidance on emission inventories for aircraft and airport sources, and future chapters will address dispersion modeling and mitigation measures.

comment 559

comment by: ECA - European Cockpit Association

ICAO's limitation of Noise Abatement Departure Procedures to two standardised methods (NADP 1 and NADP 2) with the associated procedures (e.g. choice of operator to select one of these) is an essential safety factor, which would be jeopardized by a variety of locally designed procedures. The text also ignores the need for a stabilized straight final approach segment.

comment 938 comment by: Dassault Aviation

Noise abatement procedures have to take into account the specificity of the airworthiness of every type of aircraft particularly for the city airports to manage the best procedures

Landing and departure procedures must be designed in a way that minimizes as possible noise and emissions from aircraft operations around aerodromes. This will **may** include area navigation, management of thrust, flaps, speed, altitude and track over the ground or the use of specific operational procedures based on the aircraft type's **airworthiness and** environmental characteristics and the environment of the aerodrome.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 2. Aerodromes - 2.d.

p. 23

comment 318 comment by: Luftfahrt-Bundesamt

2.a. to j.
General: The LBA does not see any necessity for EASA to cover this task

comment 367 comment by: AIRBUS

The paragraph 2d reads:
"Under operating conditions, or in case of failure, aerodrome equipment and aids must provide all functionality needed for reduction of noise and emissions and their reliability and protection from disturbance or damage must be adequate with respect to their intended function."

It is reasonable to consider that, in case of failure, the aerodrome functionalities needed for reduction of noise and emissions could be downgraded. This should be considered as acceptable, for a limited period of time, provided the integrity of safety functionalities is maintained.

comment 508 ❖ comment by: Air Transport Association of America, Inc. (ATA)

With respect to design and operational measures taken to address noise, EASA's proposed requirements would again undermine a role accorded to State and local authorities under the ICAO Balanced Approach to Noise, as applied in EU States under Directive 2002/30/EC. Those parties are best able to consider measures appropriate for local conditions.

Design and operational measures taken to address emissions from aircraft and other airport sources are governed by national laws, which are applied as appropriate for air quality conditions in areas that include airports. These localized air quality assessments do not lend themselves to generalized measures of the type that EASA contemplates. Also, ICAO is in the process of developing guidance for use by local authorities in assessing air quality in the vicinity of airports. ICAO's Airport Air Quality Guidance Manual, Doc. 9889 (2007) contains detailed guidance on emission inventories for aircraft and airport sources, and future chapters will address dispersion modeling and mitigation measures.

comment 937 comment by: *Dassault Aviation*

The wording " in case of failure" or "any" leads to an important risk of excessively costly constraints. Some safeguards have to be introduced, at least in the future Implementing Rules.

Under operating conditions, ***or in case of failure (safeguards to be introduced)***, aerodrome equipment and aids must provide all functionality needed for reduction of noise and emissions and their reliability and protection from disturbance or damage must be adequate with respect to their intended function.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 2. Aerodromes - 2.e.

p. 23

comment 79 comment by: *FRAPORT AG*

Agreed - but which user, which data?

comment 193 comment by: *EUROCOPTER*

It is not clear if additional data for reduction of noise and emissions, possibly tailored to specific aerodromes, will be requested to the aircraft manufacturer, and where the definition of these additional data will be specified. We point out that due to the specificity of the helicopter operations implying a large range of flight conditions, the data requirement could be very substantial.

comment 319 comment by: *Luftfahrt-Bundesamt*

2.a. to j.
General: The LBA does not see any necessity for EASA to cover this task

comment 508 ❖ comment by: *Air Transport Association of America, Inc. (ATA)*

With respect to design and operational measures taken to address noise, EASA's proposed requirements would again undermine a role accorded to State and local authorities under the ICAO Balanced Approach to Noise, as applied in EU States under Directive 2002/30/EC. Those parties are best able to consider measures appropriate for local conditions.

Design and operational measures taken to address emissions from aircraft and other airport sources are governed by national laws, which are applied as appropriate for air quality conditions in areas that include airports. These localized air quality assessments do not lend themselves to generalized measures of the type that EASA contemplates. Also, ICAO is in the process of developing guidance for use by local authorities in assessing air quality in the vicinity of airports. ICAO's Airport Air Quality Guidance Manual, Doc. 9889 (2007) contains detailed guidance on emission inventories for aircraft and airport sources, and future chapters will address dispersion modeling and mitigation measures.

comment 693 comment by: *AgustaWestland*

It is not clear if additional data for reduction of noise and emissions, possibly tailored to specific aerodromes, will be requested to the aircraft manufacturer, and where the definition of these additional data will be specified. We point out that due to the specificity of the helicopter operations implying a large range of flight conditions, the data requirement could be very substantial

comment 939 comment by: *Dassault Aviation*

DA encourages this point

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 2. Aerodromes - 2.f.

p. 23

comment 320 comment by: *Luftfahrt-Bundesamt*

2.a. to j.
General: The LBA does not see any necessity for EASA to cover this task

comment 508 ❖ comment by: *Air Transport Association of America, Inc. (ATA)*

With respect to design and operational measures taken to address noise, EASA's proposed requirements would again undermine a role accorded to State and local authorities under the ICAO Balanced Approach to Noise, as applied in EU States under Directive 2002/30/EC. Those parties are best able to consider measures appropriate for local conditions.

Design and operational measures taken to address emissions from aircraft and other airport sources are governed by national laws, which are applied as appropriate for air quality conditions in areas that include airports. These localized air quality assessments do not lend themselves to generalized measures of the type that EASA contemplates. Also, ICAO is in the process of developing guidance for use by local authorities in assessing air quality in the vicinity of airports. ICAO's Airport Air Quality Guidance Manual, Doc. 9889 (2007) contains detailed guidance on emission inventories for aircraft and airport sources, and future chapters will address dispersion modeling and mitigation measures.

comment 560 comment by: *ECA - European Cockpit Association*

The text of these ERs ignores the potential that there might be an aerodrome owner, who is responsible for the aerodrome design, and another entity acting as aerodrome operator, who has little influence on the aerodrome design. The ERs should clearly address both functions.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 2. Aerodromes - 2.g.

p. 23

comment 321 comment by: *Luftfahrt-Bundesamt*

2.a. to j.

General: The LBA does not see any necessity for EASA to cover this task

comment 508 ❖ comment by: *Air Transport Association of America, Inc. (ATA)*

With respect to design and operational measures taken to address noise, EASA's proposed requirements would again undermine a role accorded to State and local authorities under the ICAO Balanced Approach to Noise, as applied in EU States under Directive 2002/30/EC. Those parties are best able to consider measures appropriate for local conditions.

Design and operational measures taken to address emissions from aircraft and other airport sources are governed by national laws, which are applied as appropriate for air quality conditions in areas that include airports. These localized air quality assessments do not lend themselves to generalized measures of the type that EASA contemplates. Also, ICAO is in the process of developing guidance for use by local authorities in assessing air quality in the vicinity of airports. ICAO's Airport Air Quality Guidance Manual, Doc. 9889 (2007) contains detailed guidance on emission inventories for aircraft and airport sources, and future chapters will address dispersion modeling and mitigation measures.

comment 561 comment by: *ECA - European Cockpit Association*

The text of these ERs ignores the potential that there might be an aerodrome owner, who is responsible for the aerodrome design, and another entity acting as aerodrome operator, who has little influence on the aerodrome design. The ERs should clearly address both functions.

comment 638 comment by: *Light Aircraft Association*

Paragraph 2.g.

If any environmental regulation were to be brought in, it must allow for existing aircraft operations. This paragraph suggests that any aircraft not retro-fitted with generally impractical environmental equipment would have to be banned from most aerodromes! How could an aerodrome operator mitigate for the emissions of a 1930's aircraft engine? The suggested regulation is totally impractical.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 2. Aerodromes - 2.h.

p. 23

comment 322 comment by: *Luftfahrt-Bundesamt*

2.a. to j.

General: The LBA does not see any necessity for EASA to cover this task

comment 508 ❖ comment by: *Air Transport Association of America, Inc. (ATA)*

With respect to design and operational measures taken to address noise, EASA's proposed requirements would again undermine a role accorded to State and local authorities under the ICAO Balanced Approach to Noise, as applied in EU States under Directive 2002/30/EC. Those parties are best able to consider

measures appropriate for local conditions.

Design and operational measures taken to address emissions from aircraft and other airport sources are governed by national laws, which are applied as appropriate for air quality conditions in areas that include airports. These localized air quality assessments do not lend themselves to generalized measures of the type that EASA contemplates. Also, ICAO is in the process of developing guidance for use by local authorities in assessing air quality in the vicinity of airports. ICAO's Airport Air Quality Guidance Manual, Doc. 9889 (2007) contains detailed guidance on emission inventories for aircraft and airport sources, and future chapters will address dispersion modeling and mitigation measures.

comment 562

comment by: *ECA - European Cockpit Association*

The text of these ERs ignores the potential that there might be an aerodrome owner, who is responsible for the aerodrome design, and another entity acting as aerodrome operator, who has little influence on the aerodrome design. The ERs should clearly address both functions.

**B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 2.
Aerodromes - 2.i.**

p. 23

comment 80

comment by: *FRAPORT AG*

Agreed - as an overall target.

comment 323

comment by: *Luftfahrt-Bundesamt*

2.a. to j.
General: The LBA does not see any necessity for EASA to cover this task

comment 368

comment by: *AIRBUS*

The paragraph 2i reads:

"An aerodrome and its aviation activities may not constitute or create any particular unacceptable risk for, or damage to, the environment."

It is necessary to secure the particular use of certain aerodromes for some very specific events that, for a limited period of time, are likely to have effects on the environment different from those usually met. This is for example the case of air shows that can concentrate aerial activities that are outside the scope of the normal use of an aerodrome. The sentence should be modified accordingly: "An aerodrome and its usual aviation activities may not constitute..."

comment 389

comment by: *International Air Transport Association (IATA)*

- ER 2.i. mentions "An aerodrome and its aviation activities may not constitute or create any particular unacceptable risk for, or damage to, the environment". This clause could potentially be invoked to stop airport developments, depending on how the term "unacceptable" was defined. This is extremely vague and open to a significant amount of interpretation

and thus not acceptable.

comment 427

comment by: EUROCONTROL

Proposed text

"An aerodrome and its aviation activities may not constitute or create any particular unacceptable risk for, ~~or damage to,~~ the environment"

Justification

We propose to delete the reference to damage for better legal certainty/regulatory consistency. There is a risk of a claim on the basis of a "damage". The Essential Requirements should neither cover traditional damage (i.e. personal injury or health damage, damage to property or other economic damage) nor "environmental damage". Adequate mechanisms exist under national law to handle claims for personal and economic damage. In addition, environmental damage are handled by existing liability mechanisms, including Directive 2004/35/EC which defines an environmental damage objectively as a damage that has a "significantly adverse effect on the environment" and not as a risk (Article 2 of the Directive).

comment 508 ❖

comment by: Air Transport Association of America, Inc. (ATA)

With respect to design and operational measures taken to address noise, EASA's proposed requirements would again undermine a role accorded to State and local authorities under the ICAO Balanced Approach to Noise, as applied in EU States under Directive 2002/30/EC. Those parties are best able to consider measures appropriate for local conditions.

Design and operational measures taken to address emissions from aircraft and other airport sources are governed by national laws, which are applied as appropriate for air quality conditions in areas that include airports. These localized air quality assessments do not lend themselves to generalized measures of the type that EASA contemplates. Also, ICAO is in the process of developing guidance for use by local authorities in assessing air quality in the vicinity of airports. ICAO's Airport Air Quality Guidance Manual, Doc. 9889 (2007) contains detailed guidance on emission inventories for aircraft and airport sources, and future chapters will address dispersion modeling and mitigation measures.

comment 509

comment by: Air Transport Association of America, Inc. (ATA)

Section 2.i is another unintelligible, unenforceable prohibition of any activity that would "constitute or create any particular unacceptable risk for, or damage to, the environment." The explanatory notes indicate that this is meant to create a legal basis for measures to prevent specific actions such as location of engine run-up facilities near housing or operational practices involving contaminating fuel or oil discharges. There are specific national laws that govern such issues, and EASA should not attempt to establish a platform to enable it to insert itself into the resolution of them.

comment 579

comment by: Light Aircraft Association

Paragraph 2.i. Without adding figures to define such sweeping statements as

"any particular unacceptable risks for, or damage to, the environment", these "essential requirements" are just pandering to the lobbyists and do nothing to achieve real world reductions in any perceived environmental issues!

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 2. Aerodromes - 2.j.

p. 23

comment 324 comment by: *Luftfahrt-Bundesamt*
 2.a. to j.
 General: The LBA does not see any necessity for EASA to cover this task

comment 508 ❖ comment by: *Air Transport Association of America, Inc. (ATA)*
 With respect to design and operational measures taken to address noise, EASA's proposed requirements would again undermine a role accorded to State and local authorities under the ICAO Balanced Approach to Noise, as applied in EU States under Directive 2002/30/EC. Those parties are best able to consider measures appropriate for local conditions.
 Design and operational measures taken to address emissions from aircraft and other airport sources are governed by national laws, which are applied as appropriate for air quality conditions in areas that include airports. These localized air quality assessments do not lend themselves to generalized measures of the type that EASA contemplates. Also, ICAO is in the process of developing guidance for use by local authorities in assessing air quality in the vicinity of airports. ICAO's Airport Air Quality Guidance Manual, Doc. 9889 (2007) contains detailed guidance on emission inventories for aircraft and airport sources, and future chapters will address dispersion modeling and mitigation measures.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 3. Air traffic management and air navigation services

p. 23

comment 515 ❖ comment by: *Air Transport Association of America, Inc. (ATA)*
 Immediate completion of the Single European Sky and SESAR would provide a tremendous improvement in airline fuel efficiency. This would enable air traffic service providers to minimize unnecessary fuel burn and attendant emissions with direct routing. ATA encourages EASA to engage with EUROCONTROL to facilitate completion of this project. Any issues relating to avionics and equipment of aircraft could involve significant costs for airlines, and would need to be discussed in detail with stakeholders.

comment 715 comment by: *Rolls-Royce plc [DGJ]*
 In general, this subject falls outside Rolls-Royce's direct involvement. However, we would wish to reiterate that none of these requirements can be allowed to encourage operation in conflict with the recommended engine operating instructions for safety; this proviso is not made clear in the text.

comment 941 comment by: Dassault Aviation
DA remarks that EASA does not speak for the future and SESAR applications

comment 966 comment by: AOPA-Sweden
AOPA finds it suitable that a common European system exists for air traffic management and air navigation services.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 3. Air traffic management and air navigation services - 3.a. p. 23-24

comment 81 comment by: FRAPORT AG
3.a.3 What is maximum environmental airspace capacity

comment 369 comment by: AIRBUS
A regulation should clearly identify the actors/persons/organizations to whom it is intended. The wording "Air traffic Management and air navigation services", as mentioned in the first part of paragraph 3a, is not, by itself, sufficiently accurate to allow identifying the responsibilities as regards to the compliance with the proposed requirements.

comment 428 comment by: EUROCONTROL
Proposed text
*"To take into account the minimization of **fuel consumption**, noise and emissions when designing and using airspace structure, air traffic management procedures and air space management procedures"*
Justification
If CO2 is out of scope because it is directly associated with climate change (outside EASA scope) - therefore fuel consumption should be as well. Otherwise, for fuel conservation purpose, it could be more specific to stress the need to reduce fuel consumption and address the need for increased fuel efficiency.

comment 429 comment by: EUROCONTROL
Proposed text
*"To take into account the minimization of **fuel consumption**, noise and emissions when designing and using airspace structure, air traffic management procedures and air space management procedures"*
Justification
If CO2 is out of scope because it is directly associated with climate change (outside EASA scope) - therefore fuel consumption should be as well. Otherwise, for fuel conservation purpose, it could be more specific to stress the need to reduce fuel consumption and address the need for increased fuel efficiency.

comment 430

comment by: EUROCONTROL

Proposed text

"Where **possible necessary**, to provide actors inside and outside the ATM/ANS system with all information and data that will enable them to take noise and emissions mitigation into account in their actions."

Justification

We propose to change the text as indicated. The purpose is to avoid duplication and unnecessary burden on all actors and the related cost-inefficiencies.

EUROCONTROL already provides internationally recognised pan-European data/indicators, assessment methods, models (including for EU, ECAC, ICAO) with a view to allow use of comparable approaches/common methodologies.

comment 431

comment by: EUROCONTROL

Proposed text

"To ensure that, where appropriate, a maximum environmental airspace capacity is **commonly** defined, if necessary according to type of operations, and that this is not exceeded"

Justification

We propose to change the text as proposed. It is necessary to have a European agreed definition of "environmental airspace capacity" especially where a maximum is to be set. This is a research area which EUROCONTROL has already addressed and no consensus was achieved as to the definition of "environmental capacity".

comment 515 ❖

comment by: Air Transport Association of America, Inc. (ATA)

Immediate completion of the Single European Sky and SESAR would provide a tremendous improvement in airline fuel efficiency. This would enable air traffic service providers to minimize unnecessary fuel burn and attendant emissions with direct routing. ATA encourages EASA to engage with EUROCONTROL to facilitate completion of this project. Any issues relating to avionics and equipage of aircraft could involve significant costs for airlines, and would need to be discussed in detail with stakeholders.

comment 563

comment by: ECA - European Cockpit Association

Explanation 33 for this ER gives a very bad example for the provision of data! The information presented on flight management systems is already highly complex and would be unnecessarily cluttered by information about noise sensitive areas. The presentation of the track to be followed in combination with an appropriate navigation specification adequately achieves the aim of environmental protection.

comment 594

comment by: ADV

We strongly oppose the proposals (ref para 3.a.3) to require ATM providers to declare a maximum environmental airspace capacity. Such an ill-conceived proposal risks too complicate ATM for limited environmental benefits. If this

would mean that aircraft would need to fly around certain areas it could result in extra emissions and fuel burn. The role of ATM is to ensure safe separation of aircraft while ensuring the efficiency of aircraft operations and limiting environmental impact.

comment 636

comment by: *Light Aircraft Association*

Paragraph 3.a.

The terminology "maximum extent possible" is impossible to comply with unless all aircraft are grounded!

3.a.1. If the design of all airspace were to take into account the minimisation of noise and emissions, the open FIR would become a no fly zone! This kind of blanket statement is not practical to operate.

comment 791

comment by: *Aero-Club of Switzerland*

3.d: Free of charge? There will surely be an increase in fees, if additional information has to be provided to the airspace users.

Do you think of "data link" to assure your idea of an expeditious method of communication?

3.e: Financially writing/speaking: Of what order of magnitude were you thinking when writing this paragraph? Very interestingly, here is one of the few "musts" of this NPA!

comment 904

comment by: *Cathay Pacific Airways*

Paragraph 3.a.3

Unfortunately, this could easily be used as an ANSP mechanism to cover inadequacies in ATC service provision. Some significant science and oversight would be necessary here.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 3. Air traffic management and air navigation services - 3.b.

p. 24

comment 432

comment by: *EUROCONTROL*

Proposed text

*"All aircraft, in all phases of flight or on the movement area of an aerodrome shall be operated in accordance with common general operating rules and any procedure specified for the use of that airspace in accordance with **the applicable operational concept and these essential requirements**"*

Justification

We propose to change the text as proposed. Clarification and consistency with ATM/ANS Safety Essential Requirements (1.a) "Use of Airspace" (under co-decision legislative process - COM (2008) 390 - 2008/0128 (COD))

comment 442 comment by: *Light Aircraft Association*

Paragraph 3.b.

This "essential requirement" is totally impractical for GA!

There needs to be an allowance made for the flight testing of aircraft outside this suggested requirement.

Dispensation must also be allowed for airshows where aircraft display over and around an aerodrome.

Any aerobatic competitions must also be excluded.

In fact, the rules suggested cannot be general or covering "all aircraft" as there are numerous occasions when aircraft need to operate outside them.

comment 515 ❖ comment by: *Air Transport Association of America, Inc. (ATA)*

Immediate completion of the Single European Sky and SESAR would provide a tremendous improvement in airline fuel efficiency. This would enable air traffic service providers to minimize unnecessary fuel burn and attendant emissions with direct routing. ATA encourages EASA to engage with EUROCONTROL to facilitate completion of this project. Any issues relating to avionics and equipage of aircraft could involve significant costs for airlines, and would need to be discussed in detail with stakeholders.

comment 650 comment by: *BALPA*

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 3. Air traffic management and air navigation services - 3.c.

p. 24

comment 41 comment by: *Royal Aeronautical Society*

Paragraph 3.c requires "All aircraft to be equipped with **all** suitable appliances ... etc". This sweeping generalisation may impose an excessive regulatory burden upon the smaller aircraft that will not have the capability of the larger machines. It is necessary that more flexibility is prescribed in this essential requirement, possibly along the lines of:

"3.c All aircraft must be equipped **with suitable appliances appropriate to their size and capacity as** required by these essential requirements ...etc".

comment 194 comment by: *EUROCOPTER*

As far as aircraft equipment are concerned, there should be flexibility provisions in the future lower level requirements in order to ensure the continuity of operations of existing aircraft and of specific operations like HEMS (Helicopter Emergency Medical Services) for which the principle should be that in no case an environmental requirement could prevent from saving a human life.

comment 434

comment by: EUROCONTROL

Proposed text

"All aircraft must be equipped with all suitable appliances required by these essential requirements and operated accordingly. Appliances used in the ATM/ANS system, are considered as constituents and shall also comply with ~~the related essential~~ requirements **in point 4.** "

Justification

We propose to change the text as proposed. Clarification and consistency with ATM/ANS Safety Essential Requirements (1.b) "Use of Airspace" (under co-decision legislative process - COM (2008) 390 - 2008/0128 (COD))

comment 515 ❖

comment by: Air Transport Association of America, Inc. (ATA)

Immediate completion of the Single European Sky and SESAR would provide a tremendous improvement in airline fuel efficiency. This would enable air traffic service providers to minimize unnecessary fuel burn and attendant emissions with direct routing. ATA encourages EASA to engage with EUROCONTROL to facilitate completion of this project. Any issues relating to avionics and equipment of aircraft could involve significant costs for airlines, and would need to be discussed in detail with stakeholders.

comment 555

comment by: Deutscher Aero Club e.V. (DAeC)

Exclude unpowered aircraft (gliders, balloons, para- and hanggliders) und Ultralight Aircraft with low weight limits and capacities.

Justification:

Power supply and weight problem within unpowered aircraft (gliders, balloons, para- and hanggliders); possible weight problems for Ultralight Aircraft.

comment 621

comment by: Light Aircraft Association

Paragraph 3.c.

This is a similar situation to Mode S carriage: if you say 'you shall not enter Class A airspace unless you have an environmental control computer' you are preventing sensible operations (e.g. SVFR crossing of Class A airspace). Provisions must be included to allow sensible derogations.

Response from the Vintage Aircraft Club

It would be totally impractical to attempt to equip historic aircraft with "all suitable appliances required by these essential requirements"! If environmental equipment was to be insisted upon it must only be for aircraft designed and manufactured after the date of the new regulation and not retro-regulated to earlier designs of aircraft. ATM/ANS must accept earlier designs when utilising their airspace. As aircraft from the earliest days of aviation are still operating, and will continue into the future, no regulation should be made to prevent them continuing to fly in all airspace.

comment 694

comment by: AgustaWestland

As far as aircraft equipment are concerned, there should be flexibility

provisions in the future lower level requirements in order to ensure the continuity of operations of existing aircraft and of specific operations like HEMS (Helicopter Emergency Medical Services) for which the principle should be that in no case an environmental requirement could prevent from saving a human life

comment 884 comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*

ERA is concerned with the use of the term "all aircraft". Such a broad definition cannot be committed to. It is far too vague and all encompassing. Would the requirements apply to a hot air balloon for example?

comment 967 comment by: *AOPA-Sweden*

Item **3 c** is though not clear and it is not feasible and practically to impose on all pilots all suitable appliances. First of all it is not said what kind of appliances and second it must be technically possible for the pilot to put the equipment in the plane. Also the question of costs must be solved. It is not correct to force new technique on airplanes and pilots without having any knowledge of the practical result.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 3. Air traffic management and air navigation services - 3.d.

p. 24

comment 515 ❖ comment by: *Air Transport Association of America, Inc. (ATA)*

Immediate completion of the Single European Sky and SESAR would provide a tremendous improvement in airline fuel efficiency. This would enable air traffic service providers to minimize unnecessary fuel burn and attendant emissions with direct routing. ATA encourages EASA to engage with EUROCONTROL to facilitate completion of this project. Any issues relating to avionics and equipment of aircraft could involve significant costs for airlines, and would need to be discussed in detail with stakeholders.

comment 968 comment by: *AOPA-Sweden*

To use meteorological conditions when deciding on a environmental favorable procedure as promoted in item **3 d** is not suitable at all. Weather condition is the most important factor when planning a flight and that must be done with only safety and security in mind. If the pilot in any way whatsoever start thinking about the environment when planning a flight, there might be a risk that safety and security will be jeopardized. Further, to change the route while flying for any reason than safety is not recommended. At most flights there are also very few instruments for deciding meteorological conditions.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 3. Air traffic management and air navigation services - 3.e.

p. 24

comment 515 ❖ comment by: *Air Transport Association of America, Inc. (ATA)*

Immediate completion of the Single European Sky and SESAR would provide a tremendous improvement in airline fuel efficiency. This would enable air traffic service providers to minimize unnecessary fuel burn and attendant emissions with direct routing. ATA encourages EASA to engage with EUROCONTROL to facilitate completion of this project. Any issues relating to avionics and equipment of aircraft could involve significant costs for airlines, and would need to be discussed in detail with stakeholders.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 3. Air traffic management and air navigation services - 3.f.

p. 24

comment 227 comment by: *British Gliding Association*

It is highly likely that airspace service providers will exploit any environmental regulations to expand regulated airspace to meet their and their commercial owners needs.

3f could imply that such agencies are empowered to require other stakeholders to comply with regulated airspace change on environmental grounds.

Proposal;

3f. Such organisations must establish mutually acceptable arrangements with other relevant organisations...etc

comment 515 ❖ comment by: *Air Transport Association of America, Inc. (ATA)*

Immediate completion of the Single European Sky and SESAR would provide a tremendous improvement in airline fuel efficiency. This would enable air traffic service providers to minimize unnecessary fuel burn and attendant emissions with direct routing. ATA encourages EASA to engage with EUROCONTROL to facilitate completion of this project. Any issues relating to avionics and equipment of aircraft could involve significant costs for airlines, and would need to be discussed in detail with stakeholders.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 4. Air operations

p. 24

comment 464 comment by: *Aerospace Industries Association*

Believe that the technical feasibility and economic reasonableness criteria needed for aircraft design are also applicable to aircraft operations, particularly when operational restrictions may result from technology/design issues.

comment 564 comment by: *ECA - European Cockpit Association*

The whole section on "Air operations" lacks any requirements on aircraft operators (e.g. airlines), who would be the responsible entities to ensure compliance with applicable regulations by developing an operations manual for their operational staff. It would also be more logical to rearrange the

paragraphs, starting with operator requirements, followed by requirements on the aircraft and its subsystems, than the flight operation section, the flight preparation section and finally the requirements on air crews.

comment 714

comment by: *Rolls-Royce plc [DGJ]*

In general, this subject falls outside Rolls-Royce's direct involvement. However, we would wish to reiterate that none of these requirements can be allowed to encourage operation in conflict with the recommended engine operating instructions for safety; this proviso is not made clear in the text.

comment 969

comment by: *AOPA-Sweden*

In general the idea of regulating the environmental aspects of air operations through EASA is to be preferred since this is cross - border activity. AOPA support the notion that the rules for pilots should be the same in the whole Europe. An important aspect that seems to be overlooked though, is the practical consequences for the pilots. As previously mentioned, the most important measures of flying should be safety and the pilot cannot be imposed regulations and restrictions concerning the environmental issue more than what is practically and economically possible. Also it seems that some items in this chapter states that it is more important to be concerned with environment than of safety.

Chapter 4 in conjunction with paragraph 36 - 42 on page 19f is posing some duties on and mandatory measures to be taken by pilots before and during flights. When doing this it is of vital importance to acknowledge and realize the practical result this will have on each pilot. Commercial pilots often have help from the flight company but pilots in their own planes, sometimes flying on spare time without any commercial interest, do not at all have the time, possibility and capability to fulfill all the requirements in this chapter. It is also an economic matter and if you put too much restrictions on the pilot and his flight, he might not be able to fly at all. Further to what has been mentioned above, there must not be any situation that a pilot must make a judgement and not being quite sure when deciding about a measure in the planned flight, whether it is good for the environment but does not effect safety. Or should he decide otherwise and think maybe it is a risk and plan the flight in a manner that would be bad for the environment. This situation would be detrimental to safety of the flight.

Further, how should the pilot know if an operation is compatible with the environment or not ? Is it enough that he has the environmental awareness stated in chapter 5 ?

Hence, the only rules in chapter 4 that can be adopted, are those that do not put the pilot in a situation that he has to make a decision about safety and the environment and also important, that the pilot has a practical chance to really fulfill the requirements before and particularly during the flight.

When planning a flight for security and safety, there are some elements of environmental protection built in the planning. For instance, you always fly the shortest route which saves gasoline and try not to carry too much fuel since it costs fuel to carry fuel and saving fuel, saves money for the flight company.

As the reader suspects from the above, AOPA finds the regulations in chapter 4

totally lacks contact with the reality of flying. Thus, the whole chapter should be excluded and instead there could be a couple of short paragraphs stating that the pilot should try to minimize the negative effects on the environment as much as possible, which basically means try to use the best gasoline, lower the noise on the airplane and try to avoid cities and villages, particularly when flying low.

comment 1014

comment by: AEA

This part contains many expressions that require additional explanation: operate in an '*environmental compatible way*' and '*applicable environmental protection*'. These expressions are subject to several interpretations and should therefore be made more concrete. Furthermore, it should be noted that safety is the primary concern of the PIC.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 4. Air operations - 4.a. General

p. 24

comment 42

comment by: Royal Aeronautical Society

Paragraph 4.a.1 fails to include any provision prescribing that in the event of an emergency, the pilot-in-command must have the authority to disregard environmental considerations to the extent necessary to ensure the safety of the aircraft and its occupants. It is necessary to make this authority evident and clear thus:

"4.a.1 The pilot in command must be responsible ... for securing the operation in an environmentally compatible way. **In the event of an emergency, the pilot-in-command must have the authority to disregard environmental considerations to the extent necessary to ensure the safety of the aircraft and its occupants**".

Paragraph 4.a.2 appears to address accountabilities associated with the carriage of dangerous goods and munitions of war. Whilst the principle of identifying this environmental topic in these essential requirements is sound, it may be appropriate to include a cross-reference to the central means by which the carriage of dangerous goods and munitions of war are regulated - possibly in **Air Operations Part OPS**.

comment 82

comment by: FRAPORT AG

The Obligations on the airlines are missing!

comment 101

comment by: Lars Hjelmberg

page 24 item 4.a.2

all fuels are poisonous in one or another way, pending concentrations So aircraft should not carry any fuel ??? Look into any Material Safety Data Sheet and you will understand what I mean.

see http://www.hjelmco.com/pages.asp?r_id=13394 and you will see the skull and crossbones, the dead fish in the water etc.

comment 181 comment by: *KLM Engineering & Maintenance*

B.II.4. Air Operations:

This article contains the following expressions that require additional explanation: operate in an "*environmental compatible way*" and "*applicable environmental protection*". These expressions are subject to several interpretations and should therefore be made more concrete. Furthermore it should be noted that safety is the primary concern of the PIC

comment 195 comment by: *EUROCOPTER*

Essential Requirement n° 4.a.2. should be deleted since already covered by Essential Requirement for air operations n° 1.d. from Basic Regulation n° 216/2008.

comment 370 comment by: *AIRBUS*

The paragraph 4a1 reads:

"The pilot in command must be responsible for the operation of the aircraft in accordance with measures or procedures aimed at noise and emissions reduction, including but not limited to those specified in the flight manual, or where required the operations manual. The pilot in command must have the authority to give all commands and take any appropriate actions for the purpose of securing the operation in an environmentally compatible way."

The wording "securing the operation in an environmentally compatible way" should be clarified since it could lead to misinterpretation. Indeed, it should be mentioned that, the case arising, safety considerations must take precedence over environmental considerations. In no circumstances, the regulations should lead the crew to take decisions resulting from a trade-off between safety and environmental impact. For example, some contingency situations may result in a significant increase of crew workload. In this case, an additional workload linked to environmental protection considerations could be impossible to manage.

comment 390 comment by: *International Air Transport Association (IATA)*

- ER 4.a.1. mentions "*environmentally compatible way*". This is too vague. The same phrase appears in ER 4.b.1. as well.

comment 435 comment by: *EUROCONTROL*

Proposed text

"Subject to the primary obligation of safe operations, the pilot in command must be responsible for the operation of the aircraft in accordance with measures or procedures aimed at noise and emissions reduction, including but not limited to those specified in the flight manual, or where required the operations manual. The pilot in command must have the authority to give all commands and take any appropriate actions for the purpose of securing the operation in an environmentally compatible way"

Justification

We propose to change the text as proposed. The pilot's primary responsibility is the safety of his aircraft over and above

environmental protection. Need for legal certainty and ensure that Safety is a primary requirement ('safety first')

comment 436

comment by: EUROCONTROL

Proposed text

"Articles or substances, which are capable of posing a significant risk to the environment, ~~such as radioactive material, or poisonous material~~ must not be carried on any aircraft, unless specific procedures and instructions are applied to mitigate the related risks"

Justification

We propose to change the text as proposed. We understand that the Essential Requirements aim to leave room for Implementing Rules to define detailed implementation. "Such as..." means there are more options - it will therefore be defined in an implementing rule in line with the EASA approach.

There are a few similar yet potentially different notions: "poisonous material" here and in the explanatory note "extremely dangerous substance" (para 37.) In addition the transport of "dangerous substances" is regulated by international conventions, EC law and national air laws, mostly to control industrial risks (Directive 96/82/EEC).

comment 444

comment by: Light Aircraft Association

Paragraph 4.a.1

The pilot in command has the safety of the aircraft and those within it as his primary concern, environmental requirements are a poor second. This suggestion could create legal problems brought by those on the ground who bear grudges!

Paragraph 4.a.2.

Again, this is difficult to define as the very fuel the aircraft carries is capable of posing a significant risk to the environment as well as the oils, batteries, etc.

comment 494

comment by: Air Transport Association of America, Inc. (ATA)

- o Section 4.a -- General

Section 4.a.1 proposes an unreasonable extension of direct regulatory responsibility to the pilot in command for compliance with a vaguely defined range of "measures or procedures aimed at noise and emissions reduction," including those not found in manuals. Airlines have comprehensive programs for fuel conservation, and train their pilots thoroughly about ways in which they can safely conserve fuel at every stage of ground and in-flight operations. They have equipped their fleets with in-flight software that automatically seeks the most fuel-efficient operating altitudes. They advise their pilots regarding compliance with airport-specific requirements such as continuous descent approaches and noise abatement procedures. Pilots already have the authority to execute these environmental measures, and any question from a regulatory authority about compliance with them should be directed to the airline. Furthermore, EASA and other regulatory authorities

must recognize the primary importance of air safety; environmental regulations cannot supersede a pilot's judgment in this area.

Section 4.a.2, proposing EASA restrictions on the carriage of hazardous materials, would conflict with ICAO's harmonized global standards on the subject and should be withdrawn. ICAO's Technical Instructions on the Safe Transport of Dangerous Goods by Air (ICAO TI) build upon the principles governing the international transport of hazardous materials by air as set forth in Annex 18 to the Chicago Convention. The ICAO TI are based on the UN Recommendations on the Transport of Dangerous Goods and the International Atomic Energy Agency Regulations for the Safe Transport of Radioactive Material (TS-R-1 (ST-1, Revised)). The ICAO Dangerous Goods Panel (DGP) is responsible for periodic updating of Annex 18 and the ICAO TI. Any EASA role should be through coordination with State participants in these bodies.

comment 530 comment by: AESA

Is just the pilot the responsible for the operation or is also the airline?

comment 695 comment by: AgustaWestland

(relevant to 4.a.2.)

This Essential Requirement should be deleted since already covered by Essential Requirement for air operations n° 1.d. from Basic Regulation n° 416/2008.

comment 721 comment by: Rolls-Royce plc [DGJ]

Regarding paragraph 4.a.2, is the carriage of dangerous goods not already regulated elsewhere? Does this subject really fall into the scope of this initiative?

comment 885 comment by: EUROPEAN REGIONS AIRLINE ASSOCIATION

Paragraph 4.a.1

ERA believes that it is already clear that the pilot is in command in accordance with regulated safety requirements.

Paragraph 4.a.2

There are already in existence regulations concerning this in ICAO. What is EASA's competency to regulate dangerous goods?

comment 905 comment by: Cathay Pacific Airways

Paragraph 4.a.1

This paragraph makes the Pilot in Command responsible for operation of the aircraft, "including but not restricted to the Aircraft Flight Manual". Unfortunately, the direct result of this would be that the PIC was responsible for anything and everything even outside a proper legislative process.

Paragraph 4.b.2

It must be emphasised that transporting "dangerous goods" by air is safer than transporting them by road or ship and airlines have been carrying these goods, under very strict IATA rules, for many years with extremely few incidents.

Therefore, the intent of this paragraph is unclear as the procedures are already in place and well regulated.

comment 942

comment by: *Dassault Aviation*

The Pilot in command prime objective should remain to ensure safety of flight. Environmental aspects only come second.

4.a.1. **Provided that safety is maintained,** The pilot in command must be responsible for the operation of the aircraft in accordance with measures or procedures aimed at noise and emissions reduction, including but not limited to those specified in the flight manual, or where required the operations manual. The pilot in command must have the authority to give all commands and take any appropriate actions for the purpose of securing the operation in an environmentally compatible way.

comment 970

comment by: *AOPA-Sweden*

Considering what is mentioned above, AOPA strongly oppose what is said in paragraph 37 on page 19f and item **4 a 1** about the planning of the flight in matter of security and about the environment. When planning the flight, the pilot should only consider security and safety. If it is possible, he can also take environment into consideration but these two subjects should not be of the same importance as stated in paragraph 37. Item 4 a 1 seems to go even further and states that the environmental issue is more important than safety if you read it together with the comments in paragraph 37.

As a matter of fact, the whole chapter 4 seems to be completely written without any knowledge or understanding of flying and preparation of flying. It is impossible for each pilot to fulfill the requirements in this chapter. For example, should the pilot during flight, take another route due to the wind. He starts to suspect that he has heavy unplanned nosewind, should he then take a detour where there might be lesser nosewind and perhaps save fuel even though the flight will be longer.

Further remarks can be done on the items in chapter 4. As can be noticed, they are not all the objections AOPA has on chapter 4. If all these items will be relevant to the flight operations, each pilot must make a smaller investigation before every flight.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 4. Air operations - 4.b. Flight preparation

p. 24-25

comment 43

comment by: *Royal Aeronautical Society*

Paragraph 4.b.3 relating to departure conditions is open to restrictive interpretation. For example, if ambient meteorological conditions are such that it may not be possible to follow exactly a Noise Abatement Procedure, is the flight still allowed to depart? It is suggested that the necessary clarity would be provided if the text made clear that meteorological constraints would apply only before engine start - similar to the applicability of the Minimum Equipment List (MEL). Thus, a pilot-in-command would start engines only when it appeared that at the time of take-off it would be safe to do so and possible to

comply with the noise abatement procedure unless, with respect to either or both constraints (thunderstorms and track), the aerodrome operator via ATC gave permission for an alternative routing. A suggested form of words is:

"4.b.3 The meteorological conditions for departure, destination and, where applicable, alternate aerodromes, as well as en route conditions, must **at the time of despatch** be such that the aircraft can be operated within any restrictions imposed for environmental protection."

comment 210

comment by: *BDF - German Airline Association*

Nicht die Piloten sollen bei Fluggesellschaften die Verantwortung für die Einhaltung der umwelttechnischen Vorgaben haben, sondern die Fluggesellschaften selbst. Dies könnte im Extremfall dazu führen, dass Piloten eigenständig darüber zu entscheiden haben, ob das geführte Fluggerät umweltfreundlich fliegt oder nicht. Dies könnte darüber hinaus eine entsprechende Auswirkung auf die Operations einer Fluggesellschaft haben.

comment 371

comment by: *AIRBUS*

The paragraph 4b3 reads:

"The meteorological conditions for departure, destination and, where applicable, alternate aerodromes, as well as en route conditions, must be such that the aircraft can be operated within any restrictions imposed for environmental protection."

- The relations between meteorological conditions and possible restrictions imposed for environmental protection are not clear. The intent should be clarified. This paragraph suggests for example that flights could be delayed or even cancelled at the last minute for environmental reasons. If the understanding is correct, this measure would be such that it could, by itself, distort the economic model of air transportation in Europe. Unilateral decision of such a nature, without high-level dialogue with every aviation stakeholders, inside and outside Europe, would not be acceptable. In addition, this requirement is impractical and unrealistic considering the current scientific knowledge on atmospheric effects and the current weather forecast capabilities.
- Alternate aerodromes should be excluded from the scope of this requirement. Alternate aerodromes are used only in case of contingency. Their use should therefore not be limited by environmental considerations. It is not reasonable to envisage a flight restriction due to inadequate "environmental meteorological conditions" on the alternate aerodrome. In addition, the use of the alternate aerodrome should not be challenged by environmental considerations if operational conditions are such that the use of this aerodrome has been determined as necessary for safety reasons.

comment 445

comment by: *Light Aircraft Association*

Paragraph 4.b.2.

carrying any documents in some historic aircraft is impractical, especially light, single seat, open cockpit machines!

comment 466 comment by: *Aerospace Industries Association*

4.b.3 These requirements may cause particular difficulties for helicopter and heliport operations with safety of flight implications, potentially rendering some heliports effectively unusable.

comment 495 comment by: *Air Transport Association of America, Inc. (ATA)*

- Section 4.b - Flight preparation

Section 4.b.1, read literally, would prohibit a flight of an ATA carrier from a US airport to be "commenced" unless some unspecified person/entity has ascertained "by every reasonable means available" that "adequate facilities" for operating the flight "in an environmentally compatible way" are available. The Chicago Convention prevents EASA from imposing any restriction on a flight commencing or operating outside EU airspace. Moreover, the proposed requirements are completely unintelligible and would be unenforceable under any circumstances.

Section 4.b.2 again proposes an unreasonable direct regulatory responsibility on a pilot for the presence of "appropriate" environmental certificates and equipage related to environmental performance. Airlines, not pilots, have the responsibility for placing required documentation in aircraft and/or manuals, in accordance with ICAO guidance and national laws, and for making the capital investment to install equipage. Airlines also have the responsibility to establish pre-flight check requirements for their maintenance staff and flight crews. The proposed requirement that pilots ensure that "aircraft operating limits related to environmental protection will not be exceeded at any time during the flight" is precluded by the Chicago Convention as applied to ATA carriers, too vague to be enforceable under any circumstances, and inappropriate as applied directly to pilots who must at all times be primarily responsible for flight safety.

Section 4.b.3 appears to propose a prohibition on operating any flight if weather conditions at any stage might require operating outside "restrictions imposed for environmental protection." Operations in irregular weather conditions are a matter of flight safety, and are determined by air traffic authorities for all carriers in an affected area. The proposal is so vague that it could conceivably preclude operation of a flight that might have to be routed around a developing weather system, thus burning more fuel. This is completely unrealistic, and in any event would be precluded by the Chicago Convention as applied to any flight outside EU airspace.

comment 555 ❖ comment by: *Deutscher Aero Club e.V. (DAeC)*

Exclude unpowered aircraft (gliders, balloons, para- and hanggliders) und Ultralight Aircraft with low weight limits and capacities.

Justification:
Power supply and weight problem within unpowered aircraft (gliders, balloons, para- and hanggliders); possible weight problems for Ultralight Aircraft.

comment 651 comment by: *BALPA*

Para 4.b.2. - Are we to expect environmental limits for equipment in addition

to structural limits?

Para 4.b.3. - Will aircraft ever get airborne?

comment 886

comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*

Paragraph 4.b.1

ERA is greatly concerned with the potential trade-off between safety and environment in this paragraph. Safety should, in every case, be explicated stated to over ride any environmental requirements.

Paragraph 4.b.2

ERA is greatly concerned with the potential trade-off between safety and environment in this paragraph. Safety should, in every case, be explicated stated to over ride any environmental requirements or checks before a flight can commence. ERA also suggests the insertion of the word "normal" in the final sentence so it reads "*environmental protection will not be exceeded at any time during the NORMAL flight*".

Paragraph 4.b.3

ERA is concerned that there is likely to be a trade off with altering routes/flight levels for environmental reasons. For example, more damage to the environment through longer routings.

comment 943

comment by: *Dassault Aviation*

Paragraph 4.b.2

This point will lead to a new specific document "environmental MEL" in addition of safety MEL. It has to be discussed and defined in future associated Implementing Rules, cf comment 4 f 1i.

comment 971

comment by: *AOPA-Sweden*

4 b 3: It is rather amazing to even consider that meteorological conditions should effect the flight planning due to environmental conditions. It is not possible by far that a pilot should even be able to think about the weather when planning the flight or change the flight when up in the air. There is only one and only consideration regarding the weather and that is safety.

comment 992

comment by: *MT-Propeller Entwicklung GmbH - DOA EASA 21J.020*

4.b.1. It is impossible for the PIC to fulfill legally the requirement that a flight must not be commenced unless it has been ascertained by every reasonable means available... - every- must be deleted.

4.b.3. It is impossible for the PIC to fulfill legally the requirement. 4.b.3. must be deleted completely.

comment 44 comment by: Royal Aeronautical Society

Paragraph 4.c.2 relating to in-flight conditions appears to be an absolute rule with no room for compromise. For example, on a long flight planned at optimum levels with avoidance of contrails taken into consideration, if the contrail level is found to be different from the plan and that results in the aircraft either flying at a level that causes contrails or flying off level and having to divert, is there flexibility to fly at the contrail level? If there is, then the overall environmental impact should be less than would be caused by the extra fuel burned flying off level followed by the diversion to refuel and by extra noise on the approach and departure at the en-route alternate. To clarify this matter and restore flexibility into the decision-making process as to whether or not the flight may continue (as opposed to depart, paragraph 4.b) it will be necessary to exclude paragraph 4.b.3 from the cross-reference, thus:

"4.c.2 A flight must not be continued unless known conditions continue to be at least equivalent to those in **points 4.b.1 and 4.b.2.**"

comment 372 comment by: AIRBUS

The paragraph 4c2 reads:

"A flight must not be continued unless known conditions continue to be at least equivalent to those in point 4.b."

Since it is reasonable to assume that the aircraft will have to reach its destination anyway, this requirement could lead to one additional landing and take-off, counterproductive as regards to the environmental objective. In addition, the legislator must consider the potential safety impact linked to a diversion.

comment 437 comment by: EUROCONTROL

Proposed text

"Aircraft must be operated in a way that minimizes as much as possible the impact of its noise and emissions ~~and any subsequent environmental impacts~~. The operation must at least be in accordance with operational requirements established for environmental protection. This may include the use of specific operational procedures based on the aircraft environmental characteristics"

Justification

We propose to change the text as proposed. "Subsequent" implies cause and effect on an unknown environmental impact here.

comment 496 ❖ comment by: Air Transport Association of America, Inc. (ATA)

Section 4.c.1, requiring that aircraft be operated so as to "minimize as much as possible the impact of its noise, its emissions and any subsequent environmental impacts" is unintelligible and potentially contradictory. Some operations undertaken to minimize noise could increase emissions and vice versa. It would also be improper for EASA to look to this provision as a basis for regulating volumes of fuel carried by aircraft (p. 6, para. 27). Airlines have powerful economic incentives to minimize their use of fuel, and emissions are correspondingly minimized. Also, airlines make fueling decisions based on a range of safety considerations including operational factors, weather, and ATC issues, and authorize their pilots to make appropriate judgments for specific

flights. The Chicago Convention would prohibit EASA regulation of any fueling done outside EU airspace, and of uplift of fuel and fuel quantities even within the EU for international flights.

Section 4.c.2 providing that a flight "must not be continued" unless "known conditions continue to be at least equivalent" to the requirements addressed in the sections on flight preparation (4.b) is unreasonable, unworkable and, taken to its logical extreme, could strangle commercial aviation, harming the public and both domestic and international commerce. Would it require a flight to land at the nearest airport rather than divert to fly around a weather system? Again, any such requirement would be unenforceable to ATA carriers outside EU airspace under the Chicago Convention.

comment 565

comment by: *ECA - European Cockpit Association*

The decision whether a flight can be continued requires a thorough consideration of many operational factors, whereof safety is the most important one, and should therefore be left to the pilot in command. A strict requirement to discontinue a flight when some environmental protection requirements are no longer fulfilled might not only jeopardize flight safety, but might also create a larger environmental impact than a continued operation to either the destination or a suitable aerodrome under degraded conditions.

comment 887

comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION**Paragraph 4.c.1*

ERA is concerned with the likely trade off in this paragraph. Do we operate safely or quietly? What is the trade off?

Paragraph 4.c.2

ERA is deeply concerned with this requirement. Should a flight be stopped if the environmental effects of the flight become adverse half way through! Is this the correct interpretation of this requirement?

comment 944

comment by: *Dassault Aviation***Paragraph 4.c.2**

A flight has to be authorized if safety is threatened, even if conditions of point 4 b are not realised.

4.c.2. **Unless safety is threatened, a** A flight must not be continued unless known conditions continue to be at least equivalent to those in point 4.b

comment 972

comment by: *AOPA-Sweden*

4 c 1: What does minimize means and how does the pilot knows when it is minimized. What happens if it is at the same time jeopardizing the flight.

4 c 2: It is absolutely impossible for a pilot - during flight - to make anychanges whatsoever for environmental purposes other than planned before the flight.

comment 993 comment by: *MT-Propeller Entwicklung GmbH - DOA EASA 21J.020*
 4.c.2. It is impossible for the PIC to fulfill legally the requirement. Keeping 4.c.2. will ground the majority of flight. 4.c.2. is absolutely impracticable and must be deleted completely.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 4. Air operations - 4.d. Aircraft operating limitations p. 25

comment 497 comment by: *Air Transport Association of America, Inc. (ATA)*
 No additional regulation is needed to require that an aircraft be operated in accordance with its flight manual.

comment 654 comment by: *BALPA*
 Who is going to write the figures, EASA or the operators? Where does that leave standardisation.

comment 973 comment by: *AOPA-Sweden*
4 d 1: What are the objectives relevant for the environment and how does the pilot know that.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 4. Air operations - 4.e. Instruments, data and equipment p. 25

comment 498 comment by: *Air Transport Association of America, Inc. (ATA)*
 No additional regulation is needed to require that aircraft have the equipage to comply with the environmental regulations of the airports they serve.

comment 555 ❖ comment by: *Deutscher Aero Club e.V. (DAeC)*
 Exclude unpowered aircraft (gliders, balloons, para- and hanggliders) und Ultralight Aircraft with low weight limits and capacities.
 Justification:
 Power supply and weight problem within unpowered aircraft (gliders, balloons, para- and hanggliders); possible weight problems for Ultralight Aircraft.

comment 888 comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*
Paragraph 4.e.1
 ERA wishes to re-emphasise the dominance of safety above environmental protection by inserting the words "safety and" in the first paragraph so that it reads "An aircraft must be equipped with all navigation, communication and other equipment necessary for executing the intended flight in accordance with requirements for SAFETY AND environmental protection, taking account of related air traffic regulations and rules of the air applicable during any phase of the flight."

comment

974

comment by: *AOPA-Sweden*

4 e 1: It must first be established exactly what kind of instruments meant in this paragraph before it is possible to implement it.

4 e 2: It is impossible for a pilot to plan a flight taking into account all traffic regulations, rules of the air etc. and implement them to a flight that is best for the environment. Basically all international rules of the air are for safety reasons and for a pilot to mix these regulations with environmental thinking and plan and execute the flight accordingly is impossible.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 4. Air operations - 4.f. Continuing environmental compatibility

p. 25-26

comment

45

comment by: *Royal Aeronautical Society*

Paragraph 4.f.2 relating to pre-flight inspection does not address the possibility that despatch might take place with deficiencies such as are allowed in safety terms through the Minimum Equipment List (MEL) and Configuration Deficiency List (CDL). For example, a missing flap canoe fairing is not environmentally friendly because of the extra airflow noise and extra drag with consequent higher fuel consumption. This deficiency is currently allowed for despatch subject to operating limits specified in the CDL for most aeroplanes, taking into account performance implications. The MEL and CDL seem suitable vehicles in which environmental constraints (number of items that may be deficient and the length of time or number of departures permitted) should be placed. This paragraph could be amended thus:

"4.f.2 Before each flight or consistent series of consecutive flights, the aircraft must be inspected, through a pre-flight check, to determine whether, from an environmental protection perspective, it is fit for the intended flight **taking into account derogations specified in the aircraft MEL and CDL.**"

comment

196

comment by: *EUROCOPTER*

Essential Requirement n° 4.f.4. is not specific to environmental protection.

comment

228

comment by: *British Gliding Association*

4f 2 is understood, but represents an unrealistic proposition. Pilots cannot be expected to be environmental protection experts. During a pre flight inspection, an aircraft is either airworthy or not.

Surely the design issues at II Essential Requirements 1 will ensure that an airworthy aircraft is fit for flight from an environmental protection perspective?

Proposal;

Remove this requirement

- comment 373 comment by: AIRBUS
 The requirements are too prescriptive and provide means of compliance instead of showing the general objective. ER should remain essential and not provide this level of details.
- comment 499 comment by: Air Transport Association of America, Inc. (ATA)
 No additional regulation is needed to provide for continued airworthiness of components affecting environmental performance. Maintenance of these components is generally addressed in maintenance manuals as part of overall airworthiness requirements. If EASA has concerns about whether existing airworthiness requirements are adequate to preserve the integrity and performance of components such as mufflers and acoustic liners, its most efficient recourse is to consult with State airworthiness authorities and seek review of any procedures found to be inadequate.
- comment 600 comment by: ADV
 Also proposals related to continuing environmental capability (para 4f) seem to be excessive and difficult to implement in the real world for limited benefits. We urge EASA not to over-regulate in those matters.
- comment 627 comment by: Light Aircraft Association
Response from the Vintage Aircraft Club
 Paragraph 4.f.1.i
 The "applicable environmental requirements" for historic aircraft must be to leave them as originally designed! Any regulation must only be from the implementation of that regulation onwards and not retro-regulated.
- comment 656 comment by: BALPA
 Para 4.f.2. - If the aircraft is certified and fit for flight, it is automatically environmentally compliant.
- comment 696 comment by: AgustaWestland
 (relevant to 4.f.4.)
 This Essential Requirement is not specific to environmental protection
- comment 889 comment by: EUROPEAN REGIONS AIRLINE ASSOCIATION
Paragraph 4.f.1
 ERA believes that an aircraft should not operate ONLY unless it complies with safety and maintenance requirements not with environmental protection requirements.
Paragraph 4.f.2
 ERA believes that pre-flight checks should be focused on and reserved for safety purposes.
Paragraph 4.f.4

ERA believes this paragraph should be deleted. References to maintenance are not needed in a document on environmental regulation.

comment 945

comment by: Dassault Aviation

Brutal transposition of requirements and procedures from airworthiness to environment seems to border on the overkill. Care must be taken to adapt requirements to consequences. Implementing Rules have to contain safeguards against unrealistic requirements.

comment 946

comment by: Dassault Aviation

Paragraph 4.f.1

A document with the list of non acceptable defects for environment protection matters could be studied for future Implementing Rules to allow flight momentarily in case of acceptable degradations (MEL details acceptable conditions, the new document would do the opposite)

4.f.1. The aircraft must not be operated unless:

i The aircraft complies with the applicable environmental protection requirements; **except under the provision of the applicable MEL or equivalent document;**

comment 975

comment by: AOPA-Sweden

4 f 1 i: The environmental protections requirements must be specified before this paragraph can be put into force.

4 f 2: Also here it must be specified what it means exactly that the plane must be fit for the intended flight. Should it be cleaned before every flight with environmentally protected soap ?

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 4. Air operations - 5. Environmental awareness of persons active in the aviation system

p. 26

comment 117

comment by: university of leiden - netherlands

[Note: I am proposing one new 5.a (below), thus, renumbering the expisting 5.a to 5.b, etc.]

5. Environmental awareness of persons active in the aviation system.

5.a. *Persons active in the aviation system who carry explicit responsibility for noise & emissions management shall develop and promote measures based upon health and environmental risk assessment. Measures to improve public health and the general environmental quality must have taken into regard the interrelated nature of the various mitigating actions required. To this end, there should be*

5.a.1. *General understanding of lower and higher level authorities as regards the responsibility and potential role of each in determining health and environmental impacts of aviation.*

5.a.2. *General understanding of the essentially different objectives of protecting individual health and protecting a particular area quality,[1] and general understanding of the different indices required to assess progress in both.[2]*

5.a.3. *General understanding of the importance to address auditory and non auditory factors simultaneously when developing measures to minimize health effects from exposure to noise and emissions of aviation.*

[1] The former objective is similar to the traditional EASA concern about internal (and external) safety of aviation. The latter typically is the subject of land-use policy addressed in Directive 2002/49/EC and Council Directive 96/62/EC. Achieving the former (which *may* translate into zoning decisions) needs solid understanding of the latter (which *essentially* translates into zoning decisions).

[2] There is widespread misunderstanding of the regulatory meaning of the indices 'percentage of people awakened' (or: highly disturbed) and the related indices 'number of people awakened' (or: highly disturbed). The latter indices being a mere transformation of the former by the normalization of a given noise load to the housing situation at a particular point in time. These indices do not address the tolerability of individual health risks but reflect some aggregate cost to the local or supra-local level. That is, they reflect (desired changes in) the political trade-off regarding general qualities of (housing) areas. The maximum number itself does not have any individual health meaning. This misunderstanding has widely different influences ranging from, e.g., restrictions to real estate development near airports to the generation of distrust between local parties (within aviation and its environment).

comment 197 comment by: EUROCOPTER

This group of Essential Requirements (5.a. until 5.c.), titled "Environmental awareness of persons active in the aviation system" should be connected to the future EASA "Management Systems" Regulation.

comment 507 ❖ comment by: Air Transport Association of America, Inc. (ATA)

Airlines and other aviation stakeholders already have Environmental Management Systems (EMS), some certified under ISO 14001, which are designed to integrate environmental considerations into every aspect of the organization, and to provide each employee with an understanding of environmental considerations pertinent to his/her role.

comment 566 comment by: ECA - European Cockpit Association

The draft ERs for environmental awareness of persons active in the aviation system go far beyond reasonable measures, especially for persons operating to standard operating procedures (SOPs) according to an operations manual, such as airline crews. While some initial information might be useful, the achievement of environmental goals should be guaranteed by the SOPs and any recurrent demonstration of level of competence would be superfluous.

comment 598 comment by: ADV

We are extremely concerned about the proposals related to environmental

awareness persons active in the aviation system such as flight operations staff, maintenance staff and others (para 5). Detailed requirement for training programmes for such persons would be extremely costly for limited environmental benefits.

comment 658

comment by: *BALPA*

Section 5 - Too much to learn. This should be awareness training not an examination and grandfather rights should apply.

comment 976

comment by: *AOPA-Sweden*

In chapter 5 together with paragraphs 43 - 46 on page 20f, AOPA sees two questions: what does general understanding means and how shall each pilot reach this general understanding. AOPA suggest that some hours is put into the pilot education when studying for a pilot license. However, to educate all pilots in Europe would be to costly and we believe that just about all pilots have the necessary awareness of the environmental problems as well as most other normally educated people. For example, it is understood that noise is irritating and bad for the health.

comment 994

comment by: *MT-Propeller Entwicklung GmbH - DOA EASA 21J.020*

It is supported that environmental awareness of persons active in the aviation system should be trained accordingly as indicate in paragraph 5. Respective knowledge and training is much more worth that any restrictions and limitations. Persons with a sense of responsibility can keep the system successfully running, restrictions and limitations cannot.

The appropriate level of competence in knowledge should be maintained by recurrency courses every 5 years after the initial course. Examinations, tests or checks are not recommended because they do not improve the knowledge and environmental awareness. Person must be willing to act accordingly.

It is recommended to allow and supply self studying courses and materials via internet to keep the cost for all persons involved as low as possible.

comment 1015

comment by: *AEA*

NPA 2008-15 mentions the fact that theoretical knowledge must be maintained. This implies some kind of recurrent training for which the training requirements have not been specified.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 4. Air operations - 5. Environmental awareness of persons active in the aviation system - 5.a.

p. 26

comment 182

comment by: *KLM Engineering & Maintenance*

B.II.5.

General: this NPA mentions the fact that theoretical knowledge must be maintained. This implies some kind of recurrent training for which the training

requirements have not been specified.

comment 183 comment by: KLM Engineering & Maintenance

B.II.5. 5.a

§5.a. Persons active in the aviation system whose actions can have a significant effect on noise exposure on the ground,

No definition is provided what is meant with "actions that have a significant effect". This will lead to the possibility of different subjective interpretations which should be avoided.

To that purpose guidance material how to determine when actions can have a significant effect should be included, e.g. similar as is provided in EASA GM 21A.91 for the term "appreciable effect affecting the airworthiness", and in Appendix 1 to GM 21A.101 that includes tables of typical changes that meet the definition of a significant change or substantial change and typical changes that do not achieve the significant level.

comment 184 comment by: KLM Engineering & Maintenance

B.II.5. 5.a.1./5.a.2./5.a.3

§5.a.1./5.a.2./5.a.3. General understanding of

The term "general understanding" is open for subjective interpretation. Guidance material should be provided, e.g. similar as is given in EASA GM 145.A.30(e) for Human Factors where topics and subtopics are identified that are to be addressed during the training.

comment 198 comment by: EUROCOPTER

Wording modification proposal: "To this end, they must acquire and maintain at least the following theoretical knowledge **as applicable and proportionate to their role in the aviation system.**"

comment 325 comment by: Luftfahrt-Bundesamt

5.a. to c.

The LBA has no comments and supports the proposal.

comment 391 comment by: International Air Transport Association (IATA)

- ER 5.a. mentions "a significant effect". Again, the term 'significant' is not sufficiently specific. Who eventually determines what is significant and what is not? ER 5.a. also refers to a "general understanding". Again, this is supremely vague.

comment 465 comment by: Aerospace Industries Association

5.a "they must acquire and maintain at least the following theoretical knowledge applicable to their roles in the aviation system."

5.a.2 How can general knowledge be imparted in an area where expert knowledge is incomplete and often lacks consensus? Would recommend removal.

comment 507 ❖ comment by: *Air Transport Association of America, Inc. (ATA)*

Airlines and other aviation stakeholders already have Environmental Management Systems (EMS), some certified under ISO 14001, which are designed to integrate environmental considerations into every aspect of the organization, and to provide each employee with an understanding of environmental considerations pertinent to his/her role.

comment 697 comment by: *AgustaWestland*

This group of Essential Requirements, titled "Environmental awareness of persons active in the aviation system" should be connected to the future EASA "Management Systems" Regulation.

comment 700 comment by: *AgustaWestland*

Wording modification proposal: "To this end, they must acquire and maintain at least the following theoretical knowledge **as applicable and proportionate to their role in the aviation system.**"

comment 890 comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*

The reference to "significant effect" in this paragraph is unquantifiable and it not supported with adequate justification.

comment 1016 comment by: *AEA*

Indent 5.a

No definition is provided of what is meant by '*actions that have a significant effect*'. This will lead to the possibility of different subjective interpretations, which should be avoided.

Therefore guidance material on how to determine when actions can have a significant effect should be included, similar to that provided in EASA GM 21A.91 for the term '*appreciable effect affecting the airworthiness*', and in Appendix 1 to GM 21A.101 which includes tables of typical changes that meet the definition of a significant change or substantial change, and typical changes which do not achieve the significant level.

Indents 5.a.1./5.a.2./5.a.3

The term '*general understanding*' is open to subjective interpretation. Guidance material should be provided, similar to that given in EASA GM 145.A.30(e) for Human Factors where topics and subtopics to be addressed during training are identified.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 4. Air operations - 5. Environmental awareness of persons active in the aviation system - 5.b.

p. 26

comment 326 comment by: *Luftfahrt-Bundesamt*
 5.a. to c.
 The LBA has no comments and supports the proposal.

comment 507 ❖ comment by: *Air Transport Association of America, Inc. (ATA)*
 Airlines and other aviation stakeholders already have Environmental Management Systems (EMS), some certified under ISO 14001, which are designed to integrate environmental considerations into every aspect of the organization, and to provide each employee with an understanding of environmental considerations pertinent to his/her role.

comment 698 comment by: *AgustaWestland*
 This group of Essential Requirements, titled "Environmental awareness of persons active in the aviation system" should be connected to the future EASA "Management Systems" Regulation.

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 4. Air operations - 5. Environmental awareness of persons active in the aviation system - 5.c.

p. 26

comment 102 comment by: *Lars Hjelmsberg*
 Put these requirements for any person active in any system that creates noise, emissions, environmental impact, inclusive farmers, car drivers, motor-cycle drivers etc and you understand that these things has nothing to do with aviation but with humanity itself. Basic awareness must be taught at primary schools and when people are young -- and in general -- not to adress the issues only to aviation.
 When these issues only are adressed in the documentation to aviation -- it shows that the entire NPA 2008-15 is a political project.

comment 327 comment by: *Luftfahrt-Bundesamt*
 5.a. to c.
 The LBA has no comments and supports the proposal.

comment 507 ❖ comment by: *Air Transport Association of America, Inc. (ATA)*
 Airlines and other aviation stakeholders already have Environmental Management Systems (EMS), some certified under ISO 14001, which are designed to integrate environmental considerations into every aspect of the organization, and to provide each employee with an understanding of environmental considerations pertinent to his/her role.

comment 699 comment by: *AgustaWestland*
 This group of Essential Requirements, titled "Environmental awareness of persons active in the aviation system" should be connected to the future EASA "Management Systems" Regulation.

comment 891 comment by: *EUROPEAN REGIONS AIRLINE ASSOCIATION*
 ERA does not believe that this paragraph is necessary. Who would be required to pay for the training and what would the benefits of this training be?

B. DRAFT ESSENTIAL REQUIREMENTS - II. Essential Requirements - 4. Air operations - 6. Operating restrictions

p. 26

comment 134 comment by: *Aero-Club of Switzerland*
 And a bureaucrat will decide on all this: Block flight levels, create prohibited areas, ban certain aircraft, forbid the use of thrust reversers, establish night curfews established by leaders of political parties who wanted to be re-elected next time, not thinking of the welfare of the region/area/country, only of the calm sleep of a few?
 Why are you so sure that such measures MUST be imposed? At other places you prefer should/would/could!

comment 199 comment by: *EUROCOPTER*
 This Essential Requirement, titled "Operating restrictions" should be included in the group of Essential Requirements related to Air Operations.

comment 200 comment by: *EUROCOPTER*
 Are the definitions of the "principles of subsidiarity and proportionality" written somewhere in the Commission Regulations system?

comment 211 comment by: *BDF - German Airline Association*
 Die Aufgeführten „Operating restrictions“ stehen teilweise im Widerspruch zu den in den vorherigen Kapiteln erwähnten Schutzmaßnahmen. Entsprechende Einschränkungen, sowohl geographischer, höhentechnischer, operationeller und zeitlicher Art können zu zusätzlichen Emissionen und Lärm führen, zum Beispiel Nachtflug!

comment 328 comment by: *Luftfahrt-Bundesamt*
 6.a.
 Directive 2002/30/EC on noise-related operating restrictions has the aim of creating a uniform framework of regulations and procedures for operating restrictions at the airports of Member States. We do not see any necessity for EASA to cover this task.

comment 374 comment by: *AIRBUS*
§ 6a
 Providing a list of operating restrictions is too prescriptive. The requirement should focus only on the environmental protection objective. ER should remain essential and not provide this level of details.

comment 392 comment by: *International Air Transport Association (IATA)*

- ER 6.a, finally, mentions "*sufficient mitigation* of the impact of civil aviation on the environment or on human health and welfare". How will this be interpreted and by whom?

comment 419 comment by: *Light Aircraft Association*

Paragraph 6.

Any limitations or prohibitions need to be applied in a consistent manner across the Community and in a way that does not penalise citizens in any particular area. E.g. CAT ops less than 10,000' over national parks might be a sensible prohibition, but the same restriction on private or GA flights would not. Also, if a particular country had few or no national parks, then they wouldn't care if that prohibition were introduced whereas it would significantly affect aviation in the UK.

Response from the Vintage Aircraft Club

These operating restrictions would prohibit the continued operation of most historic aircraft!

This whole section will be resisted by the historic aircraft community.

comment 467 comment by: *Aerospace Industries Association*

What are the principles of subsidiarity and proportionality? Explain how they apply.

comment 500 comment by: *Air Transport Association of America, Inc. (ATA)*

The proposal would make operating restrictions mandatory, "as a whole or locally," in the event that other measures in the essential requirements do not sufficiently mitigate the effect of aviation on the environment or human health. The proposal does not state who would make that determination, or by what criteria. ATA strongly objects to any presumption in favor of operating restrictions, which should be considered only as a last resort and designed with reference to specific conditions.

The proposal mentions five types of potential limitations or prohibitions. None of the proposed measures is appropriate for EASA regulation. Measures pertaining to flights at certain altitudes or over certain areas are questions for air traffic authorities. Measures pertaining to flights of certain aircraft are a question for ICAO if the issue is a potential phase-out like the one applied to Chapter 2 aircraft. Measures pertaining to use of certain operational procedures are a question for air traffic authorities and/or local authorities, depending on the nature of the procedure in question. Measures pertaining to flights at certain times, e.g., curfews, are covered by the ICAO Balanced Approach to Noise, given effect in the EU under Directive 2002/30/EC, and are a question for local authorities in light of specific local circumstances.

comment 603 comment by: *ADV*

We strongly oppose the proposals related to operational restrictions (limited or prohibition of flights over certain areas or at certain altitudes ref para 6a.

- comment 632 comment by: *BCAA*
The operating restrictions should not be considered as an alternative "when the combined implementation of the essential requirements prescribed here above do not provide for a sufficient mitigation" , but well as a pillar for an integrated approach, on the same level as the other essential requirements.
- comment 701 comment by: *AgustaWestland*
This Essential Requirement, titled "Operating restrictions" should be included in the group of Essential Requirements related to Air Operations
- comment 702 comment by: *AgustaWestland*
Are the definitions of the "principles of subsidiarity and proportionality" written somewhere in the Commission Regulations system?
- comment 947 comment by: *Dassault Aviation*
Again, these wide ranging provisions should be evaluated for system wide impact, including economic aspects.
- comment 977 comment by: *AOPA-Sweden*
AOPA does not have any objections to this chapter.
- comment 995 comment by: *MT-Propeller Entwicklung GmbH - DOA EASA 21J.020*
The word prohibition must be deleted otherwise a majority of aircrafts will be grounded. Aviation business lives from flying aircrafts. Anyone who wants to prohibit safe aircrafts from operation should think about whether he or she has chosen the correct scope of work.
We run the risk to loose the spirit of aviation, aviation training possibilites and finally the pilots which are trained in GA aircrafts to fly the Airbus or Boeing commerical airlines later. This cannot be acceptable to anyone being involved in the aviation business neither in industry nor at EASA or at NAAs

Appendix A - Attachments [EASA.pdf](#)Attachment #1 to comment [#149](#) [#Grafik 2050.pdf](#)Attachment #2 to comment [#212](#) [BVF17-MB-BV010-EU-Aktionspläne-und-FL-806.pdf](#)Attachment #3 to comment [#212](#) [EASA NPA 2008-15 EUROCONTROL General Comments_20081113.pdf](#)Attachment #4 to comment [#412](#) [DGT575125.pdf](#)Attachment #5 to comment [#441](#) [Comments_of_ATA_Final_13Nov08.pdf](#)Attachment #6 to comment [#470](#) [SAS reply to NPA 2008-15 - Environmental protection.pdf](#)Attachment #7 to comment [#111](#) [AEA COMMENTS_NPA 2008-15.pdf](#)Attachment #8 to comment [#287](#) [_cmt final.pdf](#)Attachment #9 to comment [#510](#) [_cmt final explanatory.pdf](#)Attachment #10 to comment [#511](#) [_cmt ER.pdf](#)Attachment #11 to comment [#512](#) [_cmt ER.pdf](#)Attachment #12 to comment [#513](#) [_cmt Bpdf.pdf](#)Attachment #13 to comment [#514](#) [BVF17-MB-BV008vs-Flugrouten-402.pdf](#)Attachment #14 to comment [#231](#)